



Building Design Authority (P) Ltd

in joint Venture with

B.N. Consultancy Pvt. Ltd and

PLUSH Engineering & architects (P) Ltd Kathmandu.

Monthly Progress Report

Regional Urban Development Project (RUDP)

Project Implementation Unit

Biratnagar, Nepal



May 2018

Biratnagar Metropolitan City (BMC), Nepal

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EXECUTIVE SUMMARY

This Project Monitoring Report mainly covers the Progress achieved in the component of Regional Urban Development Project (RUDP) in Biratnagar Metropolitan City, Nepal. The information has been provided by following Chapters as mentioned below.

- 1. Introduction/ Background-** It provides brief Account of the Project and its Background stating why, how and when the Project was started in Biratnagar Metropolitan City.
- 2. Salient Feature of Contract Package: RUDP/ICB/BRT/2-** It provides brief Account of Contract Data with Major components of works to be carried out.
- 3. Sub Project Components-** It provides brief Account of various Sectors of the Project component summarizing the respective Progress such as Sewer Line, Storm Water Drain, Road side Drain, Roads and Lanes and Electrification Work if any. This Chapter further covers Environment Mitigation Measures and Social Safeguard measures.
- 4. Objective and Scope of Works-** This Chapter briefly describes the expected output of the Project and Scope of Consultant regarding execution of Work.
- 5. Progress of Sub – Project Components-** This Chapter comprises the status of Work stating what kind of works are being under Progress and how much Progress has been achieved till date. It further elaborates on the status of actual achievement versus the Targeted achievement till date. Having said that, the Progress may get affected by unpredicted events frequently occurring in case of our Country Nepal so such events are also enlisted for viewing the reasons behind affected Progress.
- 6. Details of Pre Cast Activities-** Details of Precast activities are also provided in this Chapter in order to demonstrate the Progress by the Contractor. Since in Urban Sector the Work is required to conduct in speedy manner, Precast work is best alternate to be provided. Hence, the details of Precast activities have been provided in order to determine whether the Contractor is able to meet the Schedule or not.
- 7. Contractor's Manpower and Contractor's Equipment-** Chapter 7 and Chapter 8 deal with summary of Manpower and Equipment respectively stating whether Resources owned by the Contractor are sufficient for the execution of Contract. The Contractor seemed unable to meet the target by 2.81% in cumulative achievement due to unpredictable Rainfall this month as well as the Contractor seemed desperate in providing sufficient Labors on the Field.



PROJECT DESCRIPTION

1.1 INTRODUCTION/BACKGROUND

GoN has negotiated loan with Asian Development Bank for the Regional Urban Development Project (RUDP) in Nepal .The RUDP, in the line with ADB's water and urban operation plans, will construct and upgrade urban infrastructure in eight towns in the Terai Region of Nepal, improve operational effectiveness of these eight municipalities. The project will also build institutional capacity of DUDBC for urban planning, project planning and project preparation in order to proactively shape urbanization in Nepal and implement the National Urban development strategy .Biratnagar is one of the eight municipal towns included in the RUDP. The subcomponent of the RUDP covers the construction and improvement of sewerage, drainage and roads and design of Integrated Solid Waste Management System for Biratnagar Municipality. Building Design Authority (P) Ltd (Nepal) ,B.N. Consultancy Pvt.ltd and PLUS Engineers & Architects (P) Ltd Kathmandu and have entered for a Contract of Consulting Services with Regional Urban Development Project (RUDP), Project Implementation Unit(PIU), Biratnagar Metropolitan City on 28th August 2017.

Regional Urban Development Project (RUDP the Department of Urban Development and Building Construction (DUDBC), under the Ministry of Urban Development(MUD) through the Government of Nepal (GoN) has received the loan from Asian Development Bank (ADB) Loan 47252-NEP.

In line with ADB's Strategy 2020 and based on Nepal's fundamental long term needs and on the GoN's priority, the ADB is continuing to support the Government in (i) improving urban infrastructure; improving access to water supply and sanitation (ii) supporting urban environmental improvement(iii) strengthening the operation and management skills of local governments. The Regional Urban Development Project (RUDP) is forward to promote healthy cities by creating healthier urban environments and was formulated under the PPTA 2010.



2 CONTRACT DATA: - RUDP/ICB/BRT/2

General Features	
Name of Project	Regional Urban Development Project(RUDP)
Executing Agency	Government of Nepal,
	Ministry of Urban Development
	Department of Urban Development and Building Construction (DUDBC)
Implementing Agency	Biratnagar Metropolitan City, Biratnagar
Funded By	Asian Development Bank & Government of Nepal
Package	Construction and Completion of Sewerage, Drainage, Road, Footpath and Road furniture works
Contract No.	RUDP/ICB/BRT/2
Location	Biratnagar Metropolitan City, Biratnagar
Consultant	Building Design Authority (P) LTD in Joint Venture With B.N. consultancy Pvt and PLUS Engineers and Architects (P) Ltd Kathmandu.
Date of Sign of Design and Supervision Consulting Service	28th August 2017
Date of Commencement of Design and Supervision Consulting Service	6th September 2017
Date of Completion	5th September 2020
Contractor	ZHONGHENG Construction Group International Engineering Co Ltd. Beijing, China.
Date of Agreement Made	10 th October 2017
Date of Commencement	2 nd November 2017
Date of Completion	1 st November 2019
Contract Amount including PS and VAT	NRs. 2,611,092,249.63
Progress	
Road Rehabilitation (Asphalt)	12.49%
Sewer Line	35.28%
Storm Drain	76.58%
Road Side Drain	39.95%
Integrated Solid Waste Management (ISWM) Design	Inception Report as well as Stakeholder's Analysis, Communication Strategy and Consultation Plan for Integrated Solid Waste Management (ISWM) has already been submitted. Due to Socio Environment Problem, Progress of Integrated Solid Waste Management (ISWM) design has been hindered.
Physical Progress up to date	Planned : 24.88% , Actual : 22.07%; Lead(+) or Lag(-) by -2.81% S curve attached



3. SUMMARY OF PROGRESS STATUS OF ALL MAJOR COMPONENTS

S.No	Description	Unit	BoQ Quantity	Progress up to date	Remaining	Progress Status expressed in %	Remarks
1	Sewer Line						
a	HDPE/RCC	m	20,082.00	7,084.00	12,998.00	35.28%	
b	Manhole	No.	656.00	234.00	422.00	35.67%	
2	Storm Water Drain						
a	RCC Drain	m	652.89	500.00	152.89	76.58%	
b	Piles	No.	132.00	138.00	(6.00)	100.00%	Exceeded
3	Road						
a	Subgrade	m	73,086.00	18,862.00	54,224.00	25.81%	
b	Subbase	m	73,086.00	18,576.00	54,510.00	25.42%	
c	Base	m	73,086.00	17,199.00	55,887.00	23.53%	
d	Prime	m	73,086.00	9,128.00	63,958.00	12.49%	
e	Asphalt	m	73,086.00	9,128.00	63,958.00	12.49%	
4	Road Side Drain	m	26,050.00	10,407.75	15,642.25	39.95%	

3.1 SUB PROJECT COMPONENTS

3.1.1 SEWER LINES

Surveying works going on after identifying the all sewer lines i.e. T1, T2, T3, and T4. Production of manhole cover and precast are also going on. Laying of RCC Hume pipe as well as HDPE are going on at T3 Line 11, T3 line 13A, T2 line 19 P etc

Table 1: PROPOSED SEWER LINES

S. NO.	Description	Unit	Original Quantity
1	Sewerage Pipe Supply and Installation	m	20,082.00
	Reinforced Concrete Pipe laying and jointing		2241.00
	Line T2 (Secondary)	m	206.00
	Line T3 (Trunk)	m	1905.00
	Line T4 (Trunk)	m	130.00
	HDPE laying and jointing	m	17,841.00



S. NO.	Description	Unit	Original Quantity
	Line T1 (Secondary)	m	1,825.00
	Line T2 (Secondary)	m	3,927.00
	Line T3 (Secondary)	m	9,997.00
	Line T4 (Secondary)	m	2,902.00
2	Manhole (Brick / RCC)	no.	685.00
3	Sewer Inlet	no.	1,010.00
4	House Connection	no.	3,784.00
5	Reinstatement of Roads	km	73.86
6	Road side Drain	Km	26.05
7	Storm Water Drain	m	652.8

Table: - 2 PHYSICAL PROGRESS IN SEWER LINES till May, 2018

SN	Locations	BoQ		Up to Pre Month		This month		Total to date		Progress %
		Length (m)	Manhole (no)	Length(m)	Manhole (no)	Length (m)	Manhole (no)	Length (m)	Manhole (no)	
1	Hume pipe(T2)	206.00	6.00							
2	Hume pipe(T3)	1,905.00	58.00	172.00		120.00	6.00	292.00	6.00	
3	Hume Pipe (T4)	130.00	4.00	326.00	11.00	-	-	326.00	11.00	
	Subtotal in (m)	2,241.00	68.00	498.00	11.00	120.00	6.00	618.00	17.00	
1	HDPE(T1)	1,825.00	57.00	208.00	6.00	542.00	18.00	750.00	24.00	
2	HDPE(T2)	3,927.00	147.00	1,567.00	55.00	609.00	22.00	2,176.00	77.00	
3	HDPE(T3)	9,997.00	316.00	1,206.00	44.00	1,565.00	53.00	2,771.00	97.00	
4	HDPE(T4)	2,092.00	68.00	566.00	14.00	203.00	5.00	769.00	19.00	
	Subtotal in (m)	17,841.00	588.00	3,547.00	119.00	2,919.00	98.00	6,466.00	217.00	
	Total	20,082.00	656.00	4,045.00	130.00	3,039.00	104.00	7,084.00	234.00	35.28%
	Sewer Inlet	BoQ(no)		Up to Pre Month		This month		Total to date		Progress %
1	Sewer inlet	1,010.00								
2	House connection	3,784.00								



3.2 STORM WATER DRAIN

The storm water drain CN2, and CN3 has been provisioned in Regional Urban Development Project (RUDP) .The Contractor has already started construction of storm water drain. The construction of drain works is going on and piling works have been completed. The detail of the progress is shown in the table below:

Table:-3 PROPOSED and PHYSICAL PROGRESS in STORM WATER DRAINS TILL May, 2018.

SN	Location	Proposed Length in (m)	Progress		Total till date (m)	Progress %
			Up to previous month in (m)	This month in (m)		
1	CN2-CN3 (Chyangh Baari Naalaa)	652.89	415	85	500	Construction of drain works going on (76.58% completed)
2	CN2-CN3 (Chyangh Baari Naalaa)	132 nos piles	138	-	138 nos	Piling works completed

3.3 ROADS AND LANES

Most of the roads/lanes in Biratnagar are in a poor state due to lack of periodic maintenance, and need improvement where as some of the roads are graveled and would benefit from upgrading. In the areas where drainage and sewerage works are proposed there will be significant impact on the existing roads. The Project has considered on design based on reinstatement, rehabilitation and upgrading of existing roads length 73.86 km. The Contractor has started detail survey work for upgrading the deteriorated pavement surface.

Table No:-4 PROPOSED and PHYSICAL PROGRESS of pavement works till May, 2018

SN	Road Number	Road Name	Proposed Length(m)	Progress Length in (m)		Total till date	Progress %
				Upto previous month	This month		
1	R3A	Madhumara Marg	600.00	600.00	-	600.00	(100%)Sub grade,
2	R42	Bhagwati Marg	218.00	218.00	-	218.00	(100%)Sub grade,
3	R104	VIP Marg	273.00	273.00	-	273.00	(100%)Sub grade
4	Rani site	Rani	4,023.00	1,702.00	-	1,702.00	(42.30%)Sub grade,
5	R37	Banglamukhi Marg	420.00	471.00	-	471.00	(100%)Sub grade,
6	R5	College Road	970.00	970.00	-	970.00	(100%)Sub grade,
7	R16	Satya Marg	604.00	604.00	-	604.00	(95.2%)Sub grade,
8	R21	Pratibha Marg	1,320.00	1,320.00	-	1,320.00	(71.96%)Sub grade,
9	R25	Devi Marg	599.00	580.00	-	580.00	(96.82%)Sub grade,
10	R24	Prabhat Marg	384.41	380.00	-	380.00	(98.71%)Sub grade,
11	R28	Pustakalaya Marg	635.00	635.00	-	635.00	(100%)Sub grade,
12	R27	Peepal Marg	810.00	810.00	-	810.00	(100%)Sub grade,



SN	Road Number	Road Name	Proposed Length(m)	Progress Length in (m)		Total till date	Progress %
				Upto previous month	This month		
13	R26	Pasang Marg	617.00	654.00	-	654.00	(100%)Sub grade
14	B1	Kanchan Marg	1,172.94	1,173.00	-	1,173.00	(100%)Sub grade,
15	B2	Gauri Shankar Marg	2,777.83	2,152.00	-	2,152.00	(77.5%)Sub grade,
16	B3	Keshaliya Marg	1,574.00	1,574.00	-	1,574.00	(100%)Sub Grade ,
17	S11	Samrat Marg	660.00	660.00	-	660.00	(100%)Sub Grade,
18	S13		1,617.00	1,417.00	-	1,417.00	(87.63%) Sub Grade,
19	R114	Dharanidhar Marg	320.00	320.00	-	320.00	(100.00%) Sub Grade,
20	R12	Kanchha Dai Marg	1,192.00	837.00	-	837.00	(70.21%) Sub Grade
21	R5a		370.00	370.00	-	370.00	(100%)Sub Grade
22	R113	Kavi Lekhnath Marg	420.00	420.00	-	420.00	(100%)Sub Grade
23	R65		282.00	320.00	-	320.00	(100%)Sub Grade
24	R107		170.00	170.00	-	170.00	(100%)Sub Grade
25	R107 a		50.00	50.00	-	50.00	(100%)Sub Grade
26	R24	Prabhat Marg	384.41	380.00	-	380.00	(99.00%) Sub Base
27	R25	Devi Marg	599.00	580.00	-	580.00	(96.83%) Sub Base



SN	Road Number	Road Name	Proposed Length(m)	Progress Length in (m)		Total till date	Progress %
				Upto previous month	This month		
28	R26	Pasang Marg	617.00	617.00	-	617.00	(100%)Sub Base
29	R27	Peepal Marg	810.00	810.00	-	810.00	(100%)Sub Base
30	R28	Pustakalaya Marg	635.00	343.00	-	343.00	(54.00%)Sub Base
31	Rani site	Rani	4,023.00	1,702.00	-	1,702.00	(42.3%)Sub Base
32	R37	Banglamukhi Marg	420.00	471.00	-	471.00	(100%)Sub Base
33	R65		282.00	320.00	-	320.00	(100%)Sub Base
34	R42	Bhagwati Marg	218.00	218.00	-	218.00	(100%)Sub Base
35	R104	VIP Marg	273.00	273.00	-	273.00	(100%)Sub Base
36	B1	Kanchan Marg	1,172.94	1,173.00	-	1,173.00	(100%)subbase
37	B2	Gauri Shankar Marg	2,777.83	1,448.00	-	1,448.00	(77.47%)Sub Base
38	S11	Samrat Marg	660.00	660.00	-	660.00	(100%)Sub Base
39	S13		1,616.26	1,417.00	-	1,417.00	(187.63%)Subbase
41	R12	Kanchha Dai Marg	1,192.00	837.00	-	837.00	(70.22%)Sub Base
43	R5	College Road	970.00	970.00	-	970.00	(100.00%)Sub Base
44	R16	Satya Marg	604.00	604.00	-	604.00	(100%)Sub Base



SN	Road Number	Road Name	Proposed Length(m)	Progress Length in (m)		Total till date	Progress %
				Upto previous month	This month		
45	R21	Pratibha Marg	1,320.00	950.00	-	950.00	(71.96%) Sub Base
46	B3	Keshaliya Marg	1,574.00	1,574.00	-	1,574.00	(100%) Sub Base
47	R3A	Madhumara Marg	600.00	600.00	-	600.00	(100%) Sub Base
48	R107		170.00	170.00	-	170.00	(100%) Sub Base
49	R107a		50.00	50.00	-	50.00	(100%) Sub Base
50	R5a		370.00	370.00	-	370.00	(100%) Sub Base
46	B1	Kanchan Marg	1,172.94	1,173.00	-	1,173.00	(98.04%) Base
47	B2	Gauri Shankar Marg	2,777.83	2,152.00	-	2,152.00	(100%) Base
48	B3	Keshaliya Marg	1,574.00	1,574.00	-	1,574.00	(100%) Base
49	S11	Samrat Marg	660.00	660.00	-	660.00	(100%) Base
50	S13		1,617.00	1,417.00	-	1,417.00	(87.63%) Base
51	R114	Dharanidhar Marg	320.00	320.00	-	320.00	(100.00%) Base
52	R12	Kanchha Dai Marg	1,192.00	837.00	-	837.00	(70.22%) Base
53	R113	Kavi Lekhnath Marg	420.00	420.00	-	420.00	(100%) Base
54	R5	College Road	970.00	970.00	-	970.00	(100%) Base
55	R16	Satya Marg	604.00	604.00	-	604.00	(100%) Base
56	R21	Pratibha Marg	1,320.00	1,320.00	-	1,320.00	(100%) Base
57	R24	Prabhat Marg	384.41	380.00	-	380.00	(100%) Base



SN	Road Number	Road Name	Proposed Length(m)	Progress Length in (m)		Total till date	Progress %
				Upto previous month	This month		
58	R25	Devi Marg	599.00	580.00	-	580.00	(96.82%) Base
59	R26	Pasang Marg	617.00	580.00	-	580.00	(94%) Base
60	R27	Peepal Marg	810.00	580.00	-	580.00	(71.61%) Base
61	R28	Pustakalaya Marg	635.00	635.00	-	635.00	(54.44%) Base
65	R37	Banglamukhi Marg	477.00	471.00	-	471.00	(100%) Base
66	R3A	Madhumara Marg	600.00	600.00	-	600.00	(100%) Base
67	R42	Bhagwati Marg	218.00	218.00	-	218.00	(100%) Base
68	R104	VIP Marg	273.00	273.00	-	273.00	(100%) Base
69	Rani	Rani	4,023.00	1,702.00	-	1,702.00	(42.30%) Base

Table No: -4.1 Road improvement Works (Work Progress till the date)

SN	Description	Unit	Proposed	Total Up to Previous Month	This Month	Total Up to this Month	Progress
1	Subgrade	m	73,086.00	18,862.00	-	18,862.00	25.81%
2	Sub Base	m	73,086.00	18,576.00	-	18,576.00	25.42%
3	Base	m	73,086.00	17,199.00	-	17,199.00	23.53%
4	Prime	m	73,086.00	5,547.00	3,581.00	9,128.00	12.49%
5	Asphalt	m	73,086.00	5,017.00	4,111.00	9,128.00	12.49%



3.4 ROAD SIDE DRAIN

Table No: -4a PROPOSED and PHYSICAL PROGRESS of Road side drain works till May, 2018.

SN	Road Number	Road Name/ Location	Proposed Length(m)	Progress Length in (m)		Total to date	Progress %
				Previous month	This month		
1	B1	Kanchan Marg	-	90.00	-	90.00	100%
2	R29	Shanti Marg	620.00	540.00	-	540.00	87%
3	N36		-	316.00	55.75	371.75	100%
4	R8	APF	540.00	460.00	-	460.00	85%
5	R7	Manakamana Marg	480.00	180.00	-	180.00	38%
	R63	DSP Road		-	192.00	192.00	100%
6	R9	Fanindra Marg	240.00	208.00	-	208.00	87%
7	S13		110.00	110.00	-	110.00	100%
8	N33		-	70.00	-	70.00	100%
9	R28	Pustakalaya Marg	640.00	270.00	-	270.00	42%
10	R90	Shakti Marg	620.00	620.00	-	620.00	100%
11	R114	Dharanidhar Marg	530.00	530.00	-	530.00	100%
	R11	Om Shiv Marg		-	140.00	140.00	100%
12	R18		762.00	762.00	-	762.00	100%
13	R17		680.00	340.00	-	340.00	50%
14	R113	Kavi Lekhnath Marg	-	200.00	-	200.00	100%
15	R77	Arniko Marg	160.00	160.00	-	160.00	100%
16	R76	Mitra Marg	540.00	540.00	-	540.00	100%
17	N9		462.00	462.00	-	462.00	100%
18	N4		250.00	250.00	-	250.00	100%
19	R33	Tarun Marg	354.00	177.00	-	177.00	50%
20	R36	Gaurav Marg	450.00	225.00	-	225.00	50%
21	R86	Janpath Marg	400.00	372.00	10.00	382.00	96%
22	R183	Nava Jyoti Marg	440.00	400.00	-	400.00	91%
23	R7a		132.00	137.00	-	137.00	100%
24	Rani site	Rani	340.00	170.00	515.00	685.00	100%
25	Rani site	Rani	200.00	100.00	70.00	170.00	85%
	N3		450.00	103.00	47.00	150.00	33%
	N5		76.00	81.00	49.00	130.00	100%
	R21		207.00	205.00	-	205.00	99%
	R2			-	250.00	250.00	100%
	Xenial Front		440.00	220.00	-	220.00	50%
	Xenial South			-	85.00	85.00	100%
	R75		135.00	226.00	-	226.00	100%



SN	Road Number	Road Name/ Location	Proposed Length(m)	Progress Length in (m)		Total to date	Progress %
				Previous month	This month		
	R122		268.00	100.00	320.00	420.00	100%
26	N2			-	50.00	50.00	100%
27	Remaining		15,642.25				
			26,050.00	8,624.00	1,783.75	10,407.75	39.95%

3.5 ENVIRONMENTAL ASPECT

The environment has been defined to mean surrounding area including human and natural resources to be affected by execution and after completion of works. the Contractor shall take all precautions for safeguarding the environment during the course of the construction of the works. He shall abide by all prevalent laws, rules and regulations governing pollution and environmental protection mitigation measure specified in the latest publication of “Environmental Management Guidelines” published by the GoN and Projects Environmental management plan.

The Contractor shall prohibit employees from unauthorized use of explosives, poaching wildlife and cutting trees. The contractor shall be responsible for the action of his employees. Environmental protection works, among others, shall also include the following.

Borrow/ quarry sites.

The engineer shall have the power to disallow the method of construction and / or the use of borrow or quarry area, if in this opinion, the stability and safety of the works or any adjacent structure is endangered, or there is undue interference with the natural or artificial drainage or the method or use of area will promote undue erosion.

Disposal of Spoil and Construction Waste.

Material excess of the requirements for permanent works and unsuitable materials shall be disposed off in location and in the manner as agreed with the Engineer. The location of disposal site shall be such as not to promote instability, destruction of properties and public service system. Exposed area of such disposal site shall be suitably dressed and be planted with suitable vegetation.

Provision and maintenance of Camps/Office/Stores/Equipment.

Various works defined under this item are related to provision a maintenance camps for work person and employees, Contractor’s site office, stores equipment yards and workshops. The camps must be adequate rain roof, Spacious, airy, and hygienic with proper lighting and material storage facilities. The area shall be kept neat and clean etc.

Provision and maintenance of Toilets.

Provision of toilets for labour and employees shall be made to avoid public nuisance as well as pollution of water courses and air. The Contractor shall construct suitable septic tanks and soak pit along with rooms of pit type latrines. Sufficient water must be provided and maintained in the toilets.

Crushing plants.

Crushing plants shall be located away from the population centers, water intakes, and should not disturb the sensitive echo system. Suitable dust control device shall be filled to be the crusher to control emission of dust from the plant etc.



Hot mix plants and Batching plants.

Hot mix plant and batching plant shall be located away from the population centers. The Contractor shall take every precaution to reduce levels of noise, vibration, dust and emission from his plants. No Bituminous material shall be discharged in to drains, nearby trees vegetation, property shall be protected during spray of bitumen etc.

Occupational Health and Safety Measures

The contractor shall provide personnel protective equipment (PPE) (Helmet, Boots, masks, gloves, jacket, protective glasses etc.) to use. Public notification, safety and warning signs and informative signboards in working sites for work safety shall be provided. The DSC engineer and DSC Environmental safeguard expert supervise and monitor the use of PPEs and other necessary safety measures regularly.

The project is environmental improvement project and mainly constitutes works on sewerage and drainage improvement works in BMC besides others. As per ADB guide lines on Environmental Assessment requirements, this project is classified as Environment Category B. According to Environmental Protection Regulation, 2054 BS, First Revised (2055 BS) schedule-3, IEE is required for Operations of Sewerage Schemes under Schedule 1.h.2.e (pertaining to Rule3). The final report on IEE was submitted and MoUD had approved the IEE on May14, 2013.

Installation of functioning sewers and functioning drainage system including roads/lanes improvement in BMC does not possess any adverse environmental impacts to its surrounding. In fact, these will greatly enhance the living conditions/hygiene of the in habitants and facilitate transportation. Nevertheless, it is imperative to look into positive as well as negative impacts of such infrastructure development works in the urban area.

Training and awareness program regarding health, safety and disease at labour camps and yards on 3 and 4 March 2018 by Safety Prevention Officer Er. Dhiraj Sardar.

A regular monitoring visit by DSC was carried out regularly and a standard site specific environmental monitoring checklist was used to record the present status of the project and verified whether or not the EMP is compiled. A sample of environmental checklist is attached herewith as Annex.

3.6 SOCIAL ASPECT

Regional Urban development Project (RUDP) in Biratnagar has implemented to improve the quality of life and help to achieve higher and more socially inclusive economic growth of people through effective, efficient, and reliable delivery of improved and affordable municipal services. Infrastructure development of drainage and sewerage system as well as roads and lane improvement are the major components of RUDP in Biratnagar Metropolitan City (BMC). Establishment and functioning of Social Safeguard Desk in PIU is a major milestone of social development aspect which has been effective to address all social/ community development issues and concerns with active initiation of the DSC. Local labours have been deployed in civil construction works (i.e. in Road side drain / Sub grading works). The Engineer has issued the format of Social Safeguard Monitoring plan which is attached here with.

Safeguard/ GESI Component**Community Awareness:**

Conduct regular Community awareness Consultations within Project Areas to build awareness on Project Objectives, Activities and implementation during site observation, Monitoring and Meetings. Different site visit has been conducted during May, 2018 such as DDC Pre cast yard, Chyangbari Naala Biratnagar-16, Asphalt work at Sai Marg, Sewer Line construction



work at Hanumandas Road and Asphalt Plant at Rani Site. Except of Minor, no any major conflict has been found during construction work. The visit was conducted jointly with Environment Safeguard Expert and Social Safeguard Expert.

Grievance Redresses Mechanism:

Total Four minor grievances have been registered in the GRC desk during May, 2018. The GRC committee has been addressed immediately registered Grievances and concerns raised by the concerned Stakeholders including Project beneficiaries.

Gender Equity and Social Inclusion (GESI):

Activities related to GESI has been monitored and supervised in all Construction sites. During site visit female workers were found in significant minority numbers at Construction sites, thus Contractor was instructed as follow:

- i. Encourage to Local female Employment as Labor and skilled man power.
- ii. Manage separate Camp and necessary facilities for female workers to encourage of female Employment.

Status of Social and Environmental Safeguard Measures

The present status to this regard has been reported as below:

During the site visit for Socio Environment monitoring by DSC Environmental and Social Safeguard Expert dated 30th May, 2018 and 31st May, 2018 following issues were discovered.

- i. The use of Personal Protection Equipment (PPE) were in very few usage thus the issue was considered unsatisfactory.
- ii. Proper Barricade was not done as well as caution signs and signals were not sufficiently used in Drainage and Sewer work Locations.

Considering above mentioned issues, the Contractor was instructed to use PPE, Barricades and proper signs and signals at working site. The implementation of Social and Environmental Safeguard measures during this month was found partially satisfactory.

3.7 FINANCIAL PLAN

The Sub-project cost will be disbursed in three years starting from FY2074/2075 to 2076/2077

3.7.1 DISBURSEMENT RECORDS IN CONSTRUCTION

SN	Description of Payment	Total Bill Amount with VAT & PS	Remark
----	------------------------	---------------------------------	--------

Table:-5 DISBURSEMENT RECORDS in CONSTRUCTION

1	IPC 01	339,106,000.00	Mobilization Advance.
	IPC 02	265,347,611.64	
	Grand Total =	604,453,611.64	



4 OBJECTIVES AND SCOPE OF WORKS

4.1 OBJECTIVES

The following are the expected physical infrastructure improvement outputs of the project in Biratnagar:

- Drainage and sewerage systems improvement.
- Urban roads and lanes improvement.

Reference to the deliverables identified in the Project, indicates that there are a number of deliverables related specifically to the design aspects of the above infrastructure improvements with construction works.

4.2 SCOPE OF WORKS

The scope of works for consultant's services is fairly detailed in the TOR attached with contract Agreement. The main points are summarized below:

- Detailed Design and Procurement Assistance Phase for integrated solid waste management design (ISWM)
- Monthly progress report and quarterly progress report.
- Semi- annual Environmental monitoring report.
- Semi-annual Safeguard monitoring report.
- Annual progress report including annual Environmental / Social safeguard monitoring report, assets.
- Detailed draft final report for our puts, including status of all supervision and construction works issues, all deliverables under the contacts.
- Sub project completion report, and summary of all other reports, progress and issues under the project.



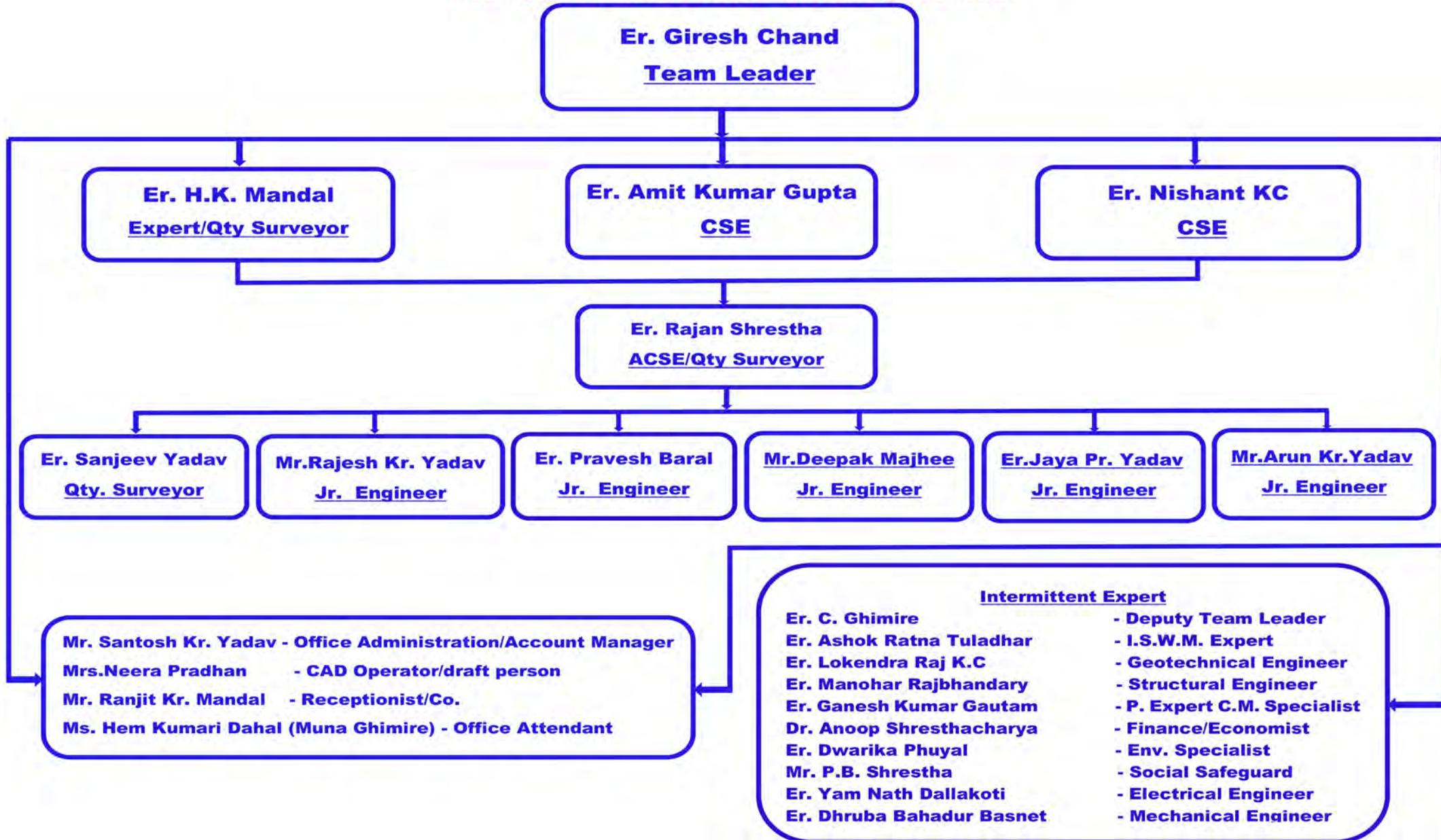
4.3 ORGANIZATION AND STAFFING

Attached



ORGANIZATION CHART

RUDP (ADB Loan No - 47252 Site Office, Biratnagar)



4.4 CONSULTANT'S ACTIVITIES IN CONSTRUCTION PHASE

The current staffing of the consultant at project site is as follows:

Table 6: CONSULTANT'S STAFF at Project Site, Biratnagar

SN	Name	Designation	Joining date	Remarks
1	Giresh Chand	Team Leader	6 th Sep 2017	
2	Ashok Ratna Tuladhar	ISWM (Designer)	6 th Sep 2017	Intermittent
3	Dwarika Phuyal	Environmental Safeguard Expert	1 Nov 2017	Intermittent
4	Prakash Bhakata Shrestha	Social Safeguard Monitoring Expert	26 th dec-2017	Intermittent
5	Hare Krishna Mandal	Expert/Quantity surveyor	1 st Nov 2017	
6	J.P Yadav	Construction Supervision Engineer	1 st March 2018	Discontinued the service since 25 th April, 2018.
7	A.K Gupta	Construction Supervision Engineer	1 st March 2018	
8	Nishant K.C.	Construction Supervision Engineer	2 nd April 2018	
9	Rajan Shrestha	ACSE/Quantity Surveyor	7 th Nov 2017	
10	Rajesh Kumar Yadav	Junior Engineer-1	6 th Sep 2017	
11	Sanjeev Yadav	Qty Surveyor	5 th Nov 2017	
12	Santosh Kumar Yadav	Office Administration/Account Manager	6 th Sep 2017	
13	Hem Kumari Dahal (Muna Ghimire)	Office Attendant	6 th Sep 2017	
14	Ranjit Kumar Mandal	Receptionist	10 th Dec 2017	
15	Pravesh Baral	Junior Engineer-2	10 th Dec 2017	
16	J.P Yadav	Junior Engineer-3	1 st March 2018	
17	Deepak Majhi	Junior Engineer-4	1 st March 2018	
18	Arun Kumar Yadav	Junior Engineer-5	16 th March 2018	



SN	Name	Designation	Joining date	Remarks
19	Neera Pradhan	CAD operator/Draft Person	10 th Dec 2017	
20	Ramji Ghimire	Driver	1st Dec-2017	

The consultant has been constantly supervising the contractor’s work in daily basis. The consultant is mainly focusing in construction management, contract administration and the following activities but not limited as listed below:

- i. Daily Construction supervision/Surveying works etc.
- ii. Quality control, cost control and time control
- iii. Measurement and Certification of Interim Payment Certificates (IPC)
- iv. Modification and design of Road side drain, storm drainage and sewer lines, manholes etc. as per site condition and approve working drawings as discussed/advised by employer.
- v. Supervise construction material testing and sampling
- vi. Monitor Environment Management Plan and its compliance
- vii. Monitor Social safeguard and Resettlement Plan and its compliance
- viii. Prepare Due Diligence Report of the Project
- ix. Maintain correspondences with the Employer and the Contractor
- x. Assisting PIU



5 PROGRESS OF SUB – PROJECT COMPONENTS

5.1 CONSTRUCTION MATERIALS.

As per Clause 1.8.2 Engineer has given early notice to the contractor for identification and sample of all construction material before starting any kind of works. Contractor has identified and submitted their requisition for sampling of materials. Sampling works of all construction materials have completed. Team leader has recommended their letter for required tests for authorized organizations. Some test reports have been submitted by the Contractor which has been tested from outside of authorized organization. Engineer has emphasized production of the pre-cast item like (kerb stone, drain cover slab, manhole etc) for better work progress of the project. The Contractor has established two production yards for pre-cast item (kerb stone, drain cover slab, man whole etc.) and production is going on.

The Contractor has informed to borrow RCC NP-3 pipes from Ithari Hume pipe factory or other location and also requested for three Edge bearing test. It will be tested very soon in presence of consultant TL/PIU and contractor representative.

5.2 TL discussed during monthly progress meeting and given guidance for making certain modification and review on submitted work program and QAP. Contractor agreed for review/modification and resubmission on work program / QAP.

5.2 PROGRESS ACHIEVED TILL DATE

Month	Target This Month		Achievement This Month		Leading		Lagging		Remarks
	Monthly	Accumulated	Monthly	Accumulated	Monthly	Accumulated	Monthly	Accumulated	
May-18	5.17%	24.88%	4.57%	22.07%			-0.60%	-2.81%	Lagging

5.3 KEY EVENTS

The consultant has noted the following key dates for the month of May, 2018.

Table 8: KEY DATES of EVENTS / ACTIVITIES

S. No.	Date	Activities/Events	Remarks
	Weather Reports		
1	Wednesday, May 02, 2018	Activities Disturbed due to Heavy Rainfall	
2	Friday, May 04, 2018	Activities Disturbed due to Rainfall	
3	Wednesday, May 09, 2018	Activities Disturbed due to Heavy Rainfall	
4	Monday, May 14, 2018	Activities Disturbed due to Heavy Rainfall	
5	Tuesday, May 15, 2018	Activities Disturbed due to Heavy Rainfall	
6	Saturday, May 19, 2018	Activities Disturbed due to Rainfall	
7	Thursday, May 24, 2018	Activities Disturbed due to Heavy Rainfall	
	Strike		
8	Sunday, May 13, 2018	Strike/ Nepal Bandh called by CPN (Maoist)	
	Security Problem at Site		



S. No.	Date	Activities/Events	Remarks
	Sunday, May 27, 2018	Contractor's Work at site was hampered inflicting security reasons from the surrounding concerned Public abusing Physically	
	Monday, May 28, 2018	Contractor's Work at site was hampered inflicting security reasons from the surrounding concerned Public abusing Physically	
	Site visits		
9		Officials of Project Implementation Unit(PIU) have conducted frequent visit to the site during the month of May, 2018	
10	Friday, May 11, 2018	Site visit and Meeting conducted by Mr. Ganesh Rauniyar, Senior Evaluation Specialist (Consultant) along with Team Members of Asian Development Bank (ADB)	

Weather Reports sourced by:

<https://www.timeanddate.com/weather/nepal/biratnagar/historic?month=5&year=2018>

Station Located at Biratnagar Airport

Among the mentioned Events, Heavy rainfall disturbed the Contractor’s activities resulting the Contractor not meeting the targeted Schedule.



6 DETAILS OF PRE CAST ACTIVITIES.

Table 9: PHYSICAL PROGRESS in PRODUCTION OF PRECAST ITEMS at till, May, 2018

Physical Progress till May 2018							
S.N.	Description	Unit	Progress			Total to Date (RM.)	Remarks
			BoQ	Up to Previous month (RM.)	This Month (RM.)		
1	Precast Slab	No		15,204.00	8,321.00	23,525.00	Under progress
2	Kerb Stone	Rm	147,729.68	22,460.00	10,437.00	32,897.00	22.27%

Table 10: PHYSICAL PROGRESS in PRODUCTION OF RCC Hume Pipe at Itahari till, May, 2018

Physical Progress till May- 2018							
S.N.	Description	Diameter (mm)	Progress			Total to Date (RM.)	Remarks
			BoQ (RM)	Up to Previous month (RM.)	This Month (RM.)		
1	RCC Pipe	300	336.00	336.00	-	336.00	Under process
2	RCC Pipe	450	681.00	340.00	341.00	681.00	
3	RCC Pipe	500	842.00	541.00	301.00	842.00	
4	RCC Pipe	600	382.00	382.00	-	382.00	
	Total						



Table 11: PHYSICAL PROGRESS in PRODUCTION OF HDPE Pipe till, May, 2018

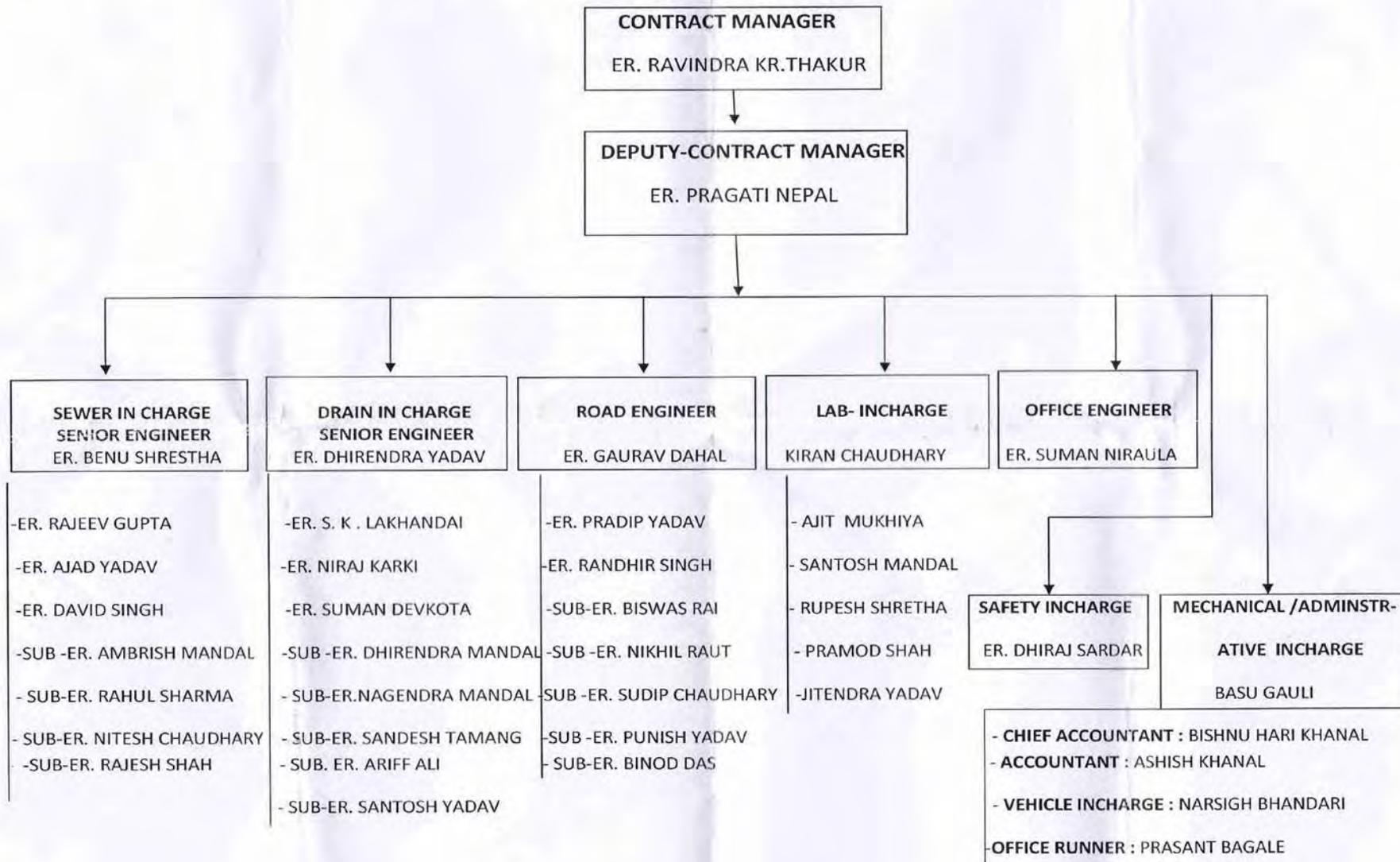
<i>Physical Progress till May- 2018</i>							
S.N.	Description	Diameter (mm)	Progress			Total to Date (RM.)	Remarks
			BoQ (RM)	Up to Previous month (RM.)	This Month (RM.)		
1	HDPE Pipe	110.00	1,987.20	1,987.20	-	1,987.20	Under process
2	HDPE Pipe	200.00	16,656.00	8,000.00	2,500.00	10,500.00	
3	HDPE Pipe	250.00	115.00	175.00	275.00	450.00	
Total							

Table 12: PHYSICAL PROGRESS in PRODUCTION OF UPVC Pipe till, May, 2018

<i>Physical Progress till May- 2018</i>							
S.N.	Description	Diameter (mm)	Progress			Total to Date (RM.)	Remarks
			BoQ (RM)	Up to Previous month (RM)	This Month (Rm.)		
1	UPVC Pipe	160.00	5,050.00	-	4,500.00	4,500.00	
2	UPVC Pipe	160.00	5,050.00	-	2,500.00	2,500.00	



**ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD-BIRATNAGAR
SITE ORGANIZATION CHART(RUDP-BIRATNAGAR)**



7 CONTRACTOR'S MANPOWER

Table 13: CONTRACTOR'S KEY STAFFS in May, 2018

S.No	Position	Minimum Number Required as per Contract	ZHONGHENG CONSTRUCTION Group	Remarks
1	Project/Contract Manager (1 No) 15/10 Yrs (Total/Similar Exp.)	1	1	
2	Civil Engineer-10/6	2	2	
3	Sanitary Engineer-(1no.)-12/8	1	-	
4	Road Engineer-(1no.)-12/8	1	1	
5	Electromechanical Engineer-(1no)-10/5	1	-	
6	Safety Engineer	-	1	
7	Site Engineer	-	8	
8	Sub- Engineer	-	18	
9	Accountant	-	2	
10	Lab Technician	-	1	
11	Store Keeper	-	2	
12	Vehicle Incharge	-	2	
13	Skilled Labors		148	
14	Unskilled Labors		281	

As per sub Clause no. 6.7 GCC/ PCC regarding Health and Safety, the Contractor needs to appoint an Accident Prevention Officer. Accident Prevention Officer has left the site beyond dated 19th May, 2018 whom the Consultant has asked for replacement.



8 CONTRACTOR'S EQUIPMENT

Table 12: CONTRACTOR'S EQUIPMENT

S.No	Equipment Type and Characteristics	Min Number required as per Contract	ZHONGHENG CONSTRUCTION Group	Remarks
1	Excavator (200 above)	5	2	Backhoe loader-9 nos.
2	Crane (10 ton capacity)	3	-	
3	Asphalt plant of adequate capacity	1	1	
4	Asphalt pavers	1	1	
5	Vibrating roller	2	3	
6	Pneumatic tyre roller 8 to 10 ton	2	1	
7	Smooth wheeled roller 8 to 10 ton	1	1	
8	Grader	1	1	
9	Track Dozer (120 to 180 HP)	1	-	
10	Bitumen distributor (4 to 6 Kilo litre)-	1	1	
11	Water browser (minimum 5000 Litres)	3	8	
12	Chips spreader	1	-	
13	Bitumen decanter minimum 4000 Litres. (preheating container)	2	2	
14	Air compressor	2	2	
15	Tipping Trucks	15	30	
16	Service vehicle	2	5	
17	Survey equipment (Total station with accessories)	1	1	
18	Thedolite	2	-	
19	Levelling	5	12	
20	Mobile Generator 15-20 Kva	3	7	
21	Mixer Machine	6	7	
22	Concrete Batching Plant	1	-	



S.No	Equipment Type and Characteristics	Min Number required as per Contract	ZHONGHENG CONSTRUCTION Group	Remarks
23	Concrete pump	1	-	
24	Drain cleaner/ Nala cleaner	2	-	
25	Broomer	-	2	
26	Motor Bike	-	10	
27	Plate Compactor	-	6	
28	Water Pump	-	6	

9 WORK PLAN FOR THE NEXT MONTH

Following are the Contractor's works in the next month program.

- Detail Surveying works at various Road sections.
- Asphalt Concrete in Road section R24/S11/R5/R113/R114/R104/R3(A).
- Storm water drainage (CN2-CN3).
- Laying of HDPE pipe for sewer line of T1/T2/T3/T4 secondary.
- Precast production works at contractor's yard.
- Side drain works.
- Laying of kerb Stone and cover slab.
- Sewer Line works



10 ANNEX-1: PHOTOGRAPHS OF MAY, 2018





Asphalt concrete works at R13



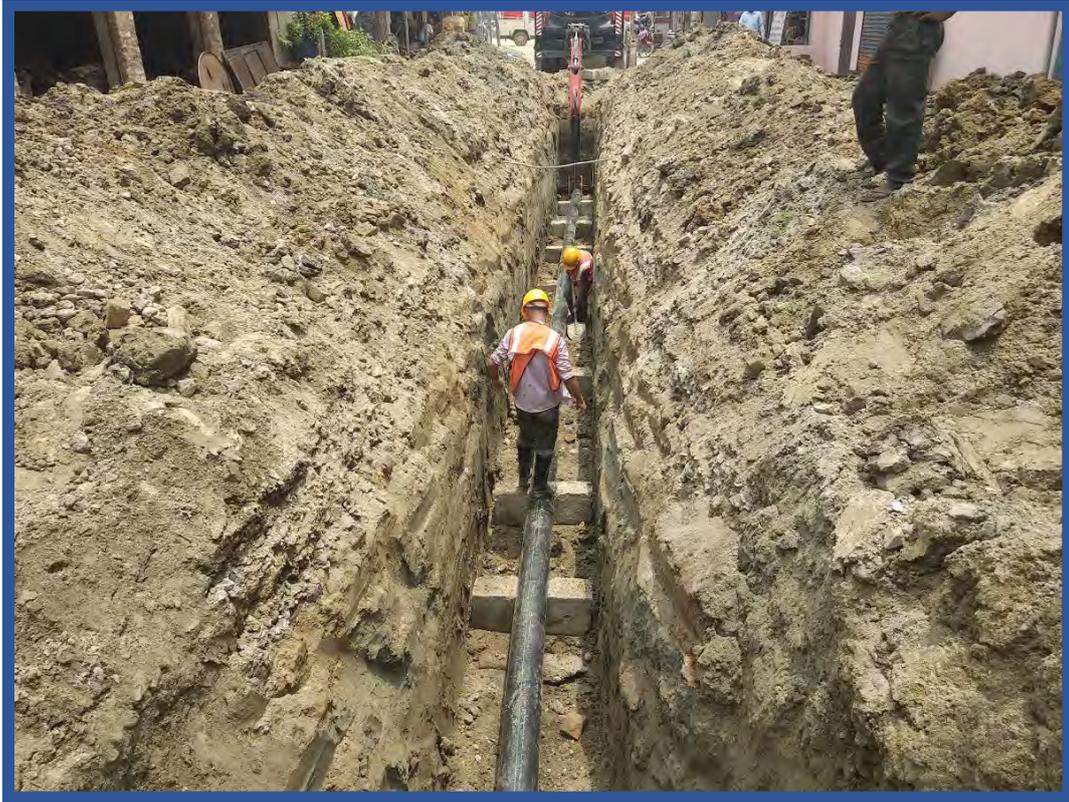
Asphalt concrete at S13



Drain works at T1Line 21



Drain work at T3 Line 21



Sewer line works at T1 Line 10



Interlocking block at B1



Shear Wall casting of Storm Drain at Chyangbari Nala



Cube casting work at Chyangbari Nala Drain



Gutter work at B2



Interaction with public at S11



Interaction with Public and concerned Stakeholders



Relocation of Electric Poles at Rani Site



Meeting with Contractor's field staff at TL Office

11 ANNEX-2: MINUTES OF MEETING MAY, 2018





Building Design Authority (P) Ltd

in Joint Venture with

B.N.Consultancy Pvt. Ltd and Plus Engineers & architects (P) Ltd, Kathmandu, Nepal

REGIONAL URBAN DEVELOPMENT PROJECT (RUDP), ADB Loan No: 47252

Biratnagar Metropolitan city, Biratnagar

MINUTES OF MEETING NO. – 11

Contract: RUDP/ICB/BRT- 02

Date: May 7 , 2018

Time: 3:30 PM

Venue: TL Office, Biratnagar

Attendance

Contractor:

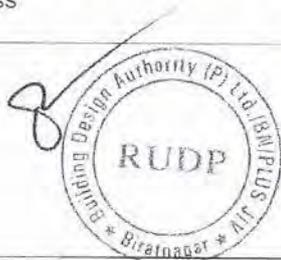
- 1 Mr Vijay Gauli, On Behalf of Contractor's Representative
- 2 Mr R K Thakur Contract Manager

Consultant:

- 1 Mr Gresh Chand Team Leader
- 2 Mr Nishant K C. CSE
- 3 Mr H K Mandal, Expert/Quantity Surveyor
- 4 Mr Rajan Shrestha Engineer/ Quantity Surveyor
- 5 Mr Rajesh K Yadav Jr Engineer
- 6 Mr Deepak Majhee, Jr Engineer
- 7 Mr J P Yadav, Jr Engineer
- 8 Mr Sanjeev Yadav Jr Engineer

TL welcomed all participants in the meeting. Following matters were discussed and decided

S.N.	Minutes	Action by
1	<p>TL, Mr Chand expressed his serious dissatisfaction about the slow progress and less manpower at site</p> <p>The contract Manager informed that whole work had been affected due to unpredictable rainfall. He further assured to increase the manpower and accelerate the work within one week for better progress</p>	Consultant/ Contractor





Building Design Authority (P) Ltd

in Joint Venture with

B.N Consultancy Pvt. Ltd and Plus Engineers & architects (P) Ltd, Kathmandu, Nepal

REGIONAL URBAN DEVELOPMENT PROJECT (RUDP), ADB Loan No. 47252

Biratnagar Metropolitan city, Biratnagar

2	<p>Drain:</p> <p>TL informed although it was already agreed to start the drain at the section where sewer line had been completed. the same had not been followed yet. He also further asked when the drain would start at T3 Line 6A, T2 Line 24 and R7 which were already executed for the sewer line.</p> <p>Contractor informed that he would start the drain work at these sections by 9 May 2018 and complete by 25 May 2018.</p>	Consultant/ Contractor
3	<p>Sewer inlet and House Connection:</p> <p>TL raised the question regarding the production of precast ring for sewer inlet and House Connection.</p> <p>Contractor informed that they have been producing the sewer inlet rings sufficient for 4 number of sewer inlet per day.</p> <p>TL further informed that such production was not sufficient enough to cater the demand of sewer inlet timely at roads which needed to be graveled before this rainy season. He further emphasized to make necessary planning for gravelling at the roads where sewer works had been undertaken before coming rainy season for smooth movement of vehicle.</p> <p>Contractor agreed on the same.</p>	Consultant/ Contractor
4	<p>Storm Water Drain (Chyangbari Nala)</p> <p>TL put his serious concern about the slow progress in Chyangbari Nala and advised to increase manpower as well as shuttering.</p> <p>Contract Manager agreed upon the same and assured to complete it before coming Rainy season.</p>	Consultant/ Contractor
5	<p>Safety and Child Labour</p> <p>TL informed he was not satisfied with the safety provision of contractor. He further informed that child labour had been found at some working site and instructed remove as early as possible.</p> <p>Contractor responded positively and assured to improve safety issues within 1 week and remove the child labour from the</p>	Consultant/ Contractor



Building Design Authority (P) Ltd

in Joint Venture with

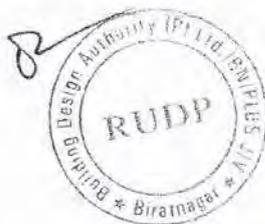
B N Consultancy Pvt. Ltd and Plus Engineers & architects (P) Ltd, Kathmandu, Nepal

REGIONAL URBAN DEVELOPMENT PROJECT (RUDP), ADB Loan No: 47252

Biratnagar Metropolitan city, Biratnagar



	working site	
	TL also informed CSE Mr. Nichant KC to look after all the safety related matters and coordinate/instruct to contractor in case of non-compliance	
6	TL informed contractor to complete all the works of the site once undertaken eg. Slab, Kerbstone, Backfilling, weep hole for proper drainage etc. Contractor agreed on the same	Consultant/ Contractor
7	TL informed that ADB team Country Partnership Strategy (CPS) would visit on dated 11 May 2018 and requested contractor to attend the meeting and site visit from 12:30 pm to 3:30 pm at PIU. Contractor agreed on the same	Employer/ Consultant/ Contractor
8	Contractor informed that their works had been hampered due to problem of right of way and requested to clear as soon as possible and expressed his intention of claim for Extension of Time (EoT) and financial as per clause 20.1. TL informed that he had already requested the Employer regarding the matter and assured to remind the employer again regarding the issue	Employer/ Consultant/ Contractor

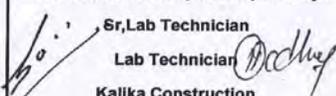
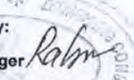


12 ANNEX-3: LABORATORY TEST RESULTS OF
MAY, 2018
Attached

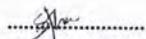


Project:Regional Urban Development Project (RUDP)																
SUMMARY OF HOT MIX ASPHALT CONCRETE WEARING COURSE																
FOR THE MONTH OF MAY 2018																
Test Result BY MARSHALL METHOD (AASHTO T 245-78)																
Contract Package:RUDP-DSC/BRT/02 P.g 1of 2																
S.No.	LAB REF. NO.	Date of Laying	Location of Work ch:	Mix Agg Gradation % Passing Sieve Sizes mm						Bitumen Content From Extraction Test %	Mix Density gm/cc	Air Voids %	VMA %	Stability N	Flow mm	
				20	16	9.5	4.75	2.36	0.6							0.075
1	10	2/5/2018	R-21 Line CH: 0+600 to 0+970	100	100	80.9	56.93	35.07	17.67	7.07	5.74	2.371	3.26	16.54	13191	2.50
2	11	3/5/2018	R-26 Line CH: 0+220 to 0+300	100	100	79.96	56.52	34.89	17.29	6.89	5.70	2.372	3.30	16.49	13361	2.40
3	12	6/5/2018	R-25 Line CH: 0+000 to 0+580	100	100	79.63	56.29	34.55	17.04	6.86	5.74	2.373	3.18	16.47	13059	2.32
4	13	7/5/2018	B3-2 Line CH: 0+210 to 0+411	100	100	78.78	55.65	34.22	16.39	6.21	5.75	2.372	3.20	16.51	12710	2.38
5	14	11/5/2018	B3-2 Line CH: 0+000 to 0+210	100	100	78.24	55.31	34.08	16.45	6.05	5.80	2.375	3.00	16.44	12369	2.35
6	15	12/5/2018	B3-1 Line CH: 0+000 to 0+370	100	100	78.35	55.21	34.62	16.79	6.60	5.78	2.376	3.03	16.42	12090	2.40
7	16	16/5/2018	S13- C Line CH: 0+000 to 0+230 LHS7 0+0000 to 0+320 RHS	100	100	79.00	56.09	35.72	16.63	6.45	5.72	2.375	3.11	16.37	12075	2.50
8	17	18/5/2018	S13-A& S13-C LineCH: 0+000 to 0+360 & 0+230 to 0+320 single Line	100	100	78.99	56.19	36.03	16.72	6.32	5.74	2.376	3.05	16.36	12385	2.48
Specifacations				100	100-100	76-82	54-59	33-37	16-21	6 to 9	6.703	Min2.358	3-6%	≥ 15	≥ 8500	2-3
Job Mix Tolerances from RUDP Specifacation Table2-4-10				±5%	NIll	±5%	±3%	±2%	±1%	NIll	±0.3%	For (25-51)mm Thickness W/C Course				
REMARKS:																
Test Conducted /Report Prepared by: Sr,Lab Technician Lab Technician <i>adhy</i> Kalika Construction Biratnagar, Sitee Lab JUDI				Contractor Reps Submitted By: Contract Manager <i>Rab</i> Zhongheng Construction Group International Engineering Co,Ltd				Consultant Rep Verified by/ Checked by: <i>[Signature]</i> BUILDING DESIGN AUTHORITY (P) LTD IN Joint Venture With B.N. Consultancy PVT .LTF AND PLUS Engineers AND Architects(P) LTD Kathmandu NEPAL								

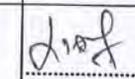
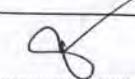


Project:Regional Urban Development Project (RUDP)																
SUMMARY OF HOT MIX ASPHALT CONCRETE WEARING COURSE																
FOR THE MONTH OF MAY 2018																
Test Result BY MARSHALL METHOD (AASHTO T 245-78)																
Contract Package:RUDP-DSC/BRT/02																
S.No.	LAB REF. NO.	Date of Laying	Location of Work ch:	Mix Agg Gradation % Passing Sieve Sizes mm						Bitumen Content From Extraction Test %	Mix Density gm/cc	Air Voids %	VMA %	Stability N	Flow mm	
				20	16	9.5	4.75	2.36	0.6							0.075
9	18	20/5/2018	B2-2 Line CH: 0+680 to 1+120	100	100	79.22	56.52	35.74	16.22	6.04	5.70	2.376	3.11	16.33	12400	2.53
10	19	23/5/2018	R.R-1 Line CH: 0+840 to 1+200	100	100	79.43	56.31	35.85	15.92	5.95	5.69	2.376	3.15	16.34	12633	2.55
11	20	24/5/2018	R.R-1 Line CH: 0+446 to 0+835 Single Line	100	100	79.54	56.64	36.28	16.35	6.18	5.68	2.377	3.11	16.28	12245	2.52
12	21	25/5/2018	R.R-1 Line CH: 0+380 to 0+840 Single Line	100	100	78.90	56.20	36.27	16.76	6.36	5.70	2.377	3.08	16.30	12276	2.40
13	22	28/5/2018	B2-2Line CH: 0+440 to 0+680	100	100	78.79	55.88	36.37	17.06	6.46	5.71	2.36	3.76	16.91	11486	2.27
14	23	30/5/2018	R-21& R-37 Line CH: 0+200 to 0+563 & 0+256 to 0+456	100	100	78.04	54.92	35.83	16.95	6.55	5.71	2.379	3.00	16.25	15826	2.52
Specifications				100	100-100	76-82	54-59	33-37	16-21	6 to 9	5.703	Min2.358	3-6%	≥ 15	≥ 8500	2-3
Job Mix Tolerances from RUDP Specification Table2-4-10				±5%	Nil	±5%	±3%	±2%	±1%	Nil	±0.3%	For (25-51)mm Thickness W/C Course				
REMARKS:																
Test Conducted /Report Prepared by:  Sr, Lab Technician Lab Technician Kalika Construction Biratnagar, Sitee Lab JUDI				Contractor Reps Submitted By:  Contract Manager Zhongheng Construction Group International Engineering Co,Ltd						Consultant Rep Verified by/ Checked by:  BUILDING DESIGN AUTHORITY (P) LTD IN Joint Venture With B.N. Consultancy PVT .LTF AND PLUS Engineers AND Architects(P) LTD Kathmandu NEPAL						



REGIONAL URBAN DEVELOPMENT PROJECT														
Biratnagar Metropolitan City														
Contract No:- RUDP/ICB/BRT-02														
SUMMARY SHEET OF CEMENT TEST														
											Month		May	
											Year		2018	
S.N.	Lab Ref.no.	Type of cement	Tetsing Date	Consistency & Setting Time			Soundness (mm)	Fineness (%)	Date of Casting	Date of Testing		Strength N/mm ²		Remarks
				Normal Cons.(%)	Initial(Min)	Final (min)				7 Days	28 Days	7 days	28 Days	
1	1	Arghakhachi OPC	3-Apr-18	29.00	95.00	295		4-Apr-18	11-Apr-18	2-May-18		45.46		
2	2	Arghakhachi OPC	6-Apr-18	31.50	85.00	295		7-Apr-18	14-Apr-18	5-May-18		46.48		
3	3	Arghakhachi OPC	11-Apr-18	28.50	85.00	235		12-Apr-18	19-Apr-18	10-May-18		47.50		
4	4	Arghakhachi OPC	3-May-18	27.25	80.00	230	1.55	6.00	4-May-18	11-May-18	1-Jun-18	34.84		
5	5	Salimar OPC	14-May-18	30.50	90.00	255	1.58	4.00	15-May-18	22-May-18	12-Jun-18	36.37		
Sp.Limit:				Min-45	Max-600	<10	<10					>33	>43	
Comments:-														
Contractor							Consultant							
ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD							BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL							
 Checked By Engineer				 Submitted By Contract Manager			 Verified By QTY Engineer/CSE				 Approved By Team Leader			

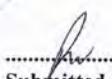
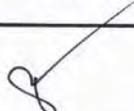


REGIONAL URBAN DEVELOPMENT PROJECT																				
Biratnagar Metropolitan City																				
Contract No: RUDP/ICB/BRT-02																				
Summary Sheet of Monthly Test Report																				
Location:- RR-1														Month		May				
														Year		2018				
														Type of Material		Base				
S.N.	Lab.Ref no.	Location of Sample	Source of Sample	Date of Testing	Sieve Size in mm / % passing By Weight								MDD	OMC	PI%	L.A.A. %	FI and EI %	A.I.V. %	CBR %	Remarks
					40	31.5	20	10	4.75	2.36	0.6	0.075								
1	RUDP-B-01	RR-1, 0+100	Chisang Khola	8-May-18	100	89.57	73.38	52.97	38.34	28.23	15.92	5.62			NP	35.70	22.08/18.72	21.25		
2	RUDP-B-02	RR-1, 0+250	Chisang Khola	8-May-18	100	87.32	70.22	54.81	37.69	27.86	15.13	6.19	2.240	5.75	NP	33.80	22.37/17.88	22.84	85.20	
3	RUDP-B-03	RR-1, 0+300	Chisang Khola	8-May-18	100	87.35	69.49	53.65	41.48	30.93	17.34	7.50			NP	30.38	23.38/17.92	22.83		
4	RUDP-B-04	RR-1, 0+450	Chisang Khola	8-May-18	100	87.65	69.40	52.68	39.43	26.38	14.76	5.92	2.243	5.60	NP	33.50	21.19/17.72	21.28	88.00	
5	RUDP-B-05	RR-1, 0+500	Chisang Khola	9-May-18	100	87.52	67.37	54.01	41.35	30.72	17.97	7.92			NP	31.64	25.24/18.89	22.60		
6	RUDP-B-06	RR-1, 0+650	Chisang Khola	9-May-18	100	87.27	67.13	54.38	40.10	29.28	16.74	7.40	2.245	5.00	NP	31.64	23.98/17.74	21.12	90.00	
7	RUDP-B-07	RR-1, 0+700	Chisang Khola	9-May-18	100	88.46	69.93	55.98	40.12	29.42	15.42	6.91			NP	30.04	21.34/17.59	21.73		
8	RUDP-B-08	RR-1, 0+800	Chisang Khola	9-May-18	100	87.28	69.12	54.36	36.78	26.56	16.24	6.53	2.249	6.00	NP	33.44	23.30/18.59	22.69	91.50	
9	RUDP-B-09	RR-1, 0+900	Chisang Khola	10-May-18	100	87.11	68.15	53.03	38.99	28.43	15.44	6.77			NP	33.18	20.67/17.73	24.01		
10	RUDP-B-10	RR-1, 1+000	Chisang Khola	10-May-18	100	86.96	68.80	54.78	37.58	27.55	16.43	7.38	2.247	6.10	NP	32.84	23.78/19.58	21.71	88.50	
11	RUDP-B-11	RR-1, 1+100	Chisang Khola	10-May-18	100	87.88	68.89	53.17	40.35	27.32	15.67	6.88			NP	33.16	21.53/17.49	19.59		
12	RUDP-B-12	RR-1, 1+180	Chisang Khola	10-May-18	100	89.03	68.70	52.28	38.76	29.35	17.35	8.58	2.244	5.30	NP	34.84	23.96/20.61	21.67	87.20	
Spec. Limit :					100	85-100	62-92	40-70	26-55	21-53	12-28	2-10				< 45	< 35	< 35	> 80	
Contractor										Consultant										
ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD										BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL										
 Checked By Engineer					 Submitted By Contract Manager					 Verified By QTY Engineer/CSE					 Approved By Team Leader					



REGIONAL URBAN DEVELOPMENT PROJECT																							
Biratnagar Metropolitan City																							
Contract No: RUDP/ICB/BRT-02																							
Daily Application Rate Check for Priming work																							
Type of Bitumen:80/100 P.G						SUMMARY FOR THE MONTH OF APRIL 2018																	
Cutter Percentage:MC 70:MC30																							
SN NO	Location	Date of Priming	Station From	Station to	Side of Priming	Area of Priming	Intersection Area m2	Total Area M2	Bitumen Consumption (ltr)	Application Rate By Dip Lit/m2	Application Rate Bt Tray Test Lit/m2												
1	R-21	01-May-18	0+600	0+740	Both Side	742	0	742	750	1.01	1.04												
2	R-25	05-May-18	0+000	0+580	Both Side	2211	0	2211	2300	1.04	1.04												
3	B3-2	06-May-18	0+210	0+411	Both Side	1855.23	0	1855.23	1850	1.00	1.02												
4	B3-2	10-May-18	0+000	0+210	Both Side	1291.5	0	2071.5	2100	1.01	1.03												
	B3-1	10-May-18	0+370	0+500	Both Side	780	0																
5	B3-1	11-May-18	0+000	0+370	Both Side	2497.5	0	2497.5	2600	1.04	1.04												
6	B2-2	17-May-18	0+840	1+120	Both Side	2422	0	2422	2600	1.07	1.03												
7	S13-A	17-May-18	0+000	0+360	Both Side	2700	0	2700	2900	1.07	1.03												
8	B2-2	18-May-18	0+680	0+840	Both Side	1392	0	1392	1500	1.08	1.02												
Required specification for Prime coat 1.0 Lit/M2 ± 5% Specific Gravity of Bitumen 1.025																							
Contractor						Consultant																	
ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD						BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL																	
 Checked By Engineer						Submitted By Contract Manager						Verified By QTY Engineer/CSE						Approved By Team Leader					

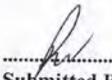


REGIONAL URBAN DEVELOPMENT PROJECT Biratnagar Metropolitan City Contract No: RUDP/ICB/BRT-02 Daily Application Rate Check for Priming work																							
Type of Bitumen:80/100 P.G				SUMMARY FOR THE MONTH OF APRIL 2018																			
Cutter Percentage:MC 70:MC30																							
SN NO	Location	Date of Priming	Station		Side of Priming	Area of Priming	Intersection Area m2	Total Area M2	Bitumen Consumption (Itr)	Application Rate By Dip Lit/m2	Application Rate Bt Tray Test Lit/m2												
From	to																						
9	RR-1	22-May-18	0+840	1+200	Both Side	2592	0	2592	2650	1.02	1.04												
10	RR-1	23-May-18	0+380	0+840	Both Side	3266	87.69	3353.69	3500	1.04	1.06												
11	B2-2	27-May-18	0+440	0+680	Both Side	1876.8	0	1876.8	2050	1.09	1.04												
13	R-37	29-May-18	0+256	0+456	Both Side	860	0	860	900	1.05	1.05												
14	R-21	29-May-18	0+200	0+563	Both Side	1724.25	0	1724.25	1800	1.04	1.03												
Total									27500														
Required specification for Prime coat 1.0 Lit/M2 ± 5% Specific Gravity of Bitumen 1.025																							
Contractor						Consultant																	
ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD						BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL																	
 Checked By Engineer						 Submitted By Contract Manager						 Verified By QTY Engineer/CSE						 Approved By Team Leader					



REGIONAL URBAN DEVELOPMENT PROJECT Biratnagar Metropolitan City Contract No: RUDP/ICB/BRT-02 Daily Application Rate Check for TACK COAT SUMMARY FOR THE MONTH OF MAY 2018																							
Type of Bitumen:80/100 P.G																							
S.N.	Location	Date of Tack coat	Station		Side of Tack coat	Area of Tack coat	Intersection Area m2	Total Area M2	Bitumen Consumption	Application Rate By Dip Lit/m2	Application Rate Bt Tray Test Lit/m2												
1	R-21	2-May-18	0+600	0+970	BHS	2279.2	12.38	2291.58	1550	0.68	0.66 ✓												
2	R-26	3-May-18	0+070	0+300	BHS	920	0	920.00	600	0.65	0.64 ✓												
3	R-25	6-May-18	0+000	0+580	BHS	2211	0	2211.00	1450	0.66	0.63 ✓												
								0.00															
3	B3-2	7-May-18	0+210	0+411	BHS	2130.6	0	2130.60	1900	0.66	0.63 ✓												
								0.00															
4	B3-2	11-May-18	0+000	0+210	BHS	1291.5	18.22	2089.72	1350	0.65	0.63 ✓												
	B3-1	11-May-18	0+370	0+500	BHS	780	0																
5	B3-1	12-May-18	0+00	0+370	BHS	2497.5	13.47	2510.97	1600	0.64	0.63 ✓												
Required tack coat is 0.40 to 0.60Lit/M2 According to Road Note -3,Section 711.2																							
Specific Gravity of Bitumen 1.025																							
Contractor						Consultant																	
ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD						BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL																	
 Checked By Engineer						Submitted By Contract Manager						Verified By QTY Engineer/CSE						Approved By Team Leader					



REGIONAL URBAN DEVELOPMENT PROJECT Biratnagar Metropolitan City Contract No: RUDP/ICB/BRT-02 Daily Application Rate Check for TACK COAT SUMMARY FOR THE MONTH OF May 2018																							
Type of Bitumen:80/100 P.G																							
S.N.	Location	Date of Tack coat	Station		Side of Tack coat	Area of Tack coat	Intersection Area m2	Total Area M2	Bitumen Consumption	Application Rate By Dip Lit/m2	Application Rate Bt Tray Test Lit/m2												
From	to																						
6	S13-C	16-May-18	0+000	0+230	LHS	782	0	782.00	1200	0.64	0.64												
			0+000	0+320	RHS	1088	0	1088.00															
Total								1870.00															
7	S13-A	18-May-18	0+000	0+360	BHS	2700	0	2700.00	1700	0.63	0.63												
8	S13-C	18-May-18	0+230	0+320	LHS	306	0	306.00	200	0.65	0.64												
9	B2-2	20-May-18	0+680	1+120	BHS	3542	87.79	3629.79	2350	0.65	0.64												
10	RR-1	23-May-18	0+840	1+200	BHS	2700	0	2700.00	1900	0.70	0.69												
11	RR-1	24-May-18	0+440	0+835	RHS	1402.25	61.93	1464.18	950	0.65	0.63												
Required tack coat is 0.40 to 0.60Lit/M2 According to Road Note -3,Section 711.2 Specific Gravity of Bitumen 1.025																							
Contractor						Consultant																	
ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD						BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL																	
 Checked By Engineer						 Submitted By Contract Manager						 Verified By QTY Engineer/CSE						 Approved By Team Leader					



REGIONAL URBAN DEVELOPMENT PROJECT Biratnagar Metropolitan City Contract No: RUDP/ICB/BRT-02 Daily Application Rate Check for TACK COAT SUMMARY FOR THE MONTH OF May 2018																							
Type of Bitumen:80/100 P.G																							
S.N.	Location	Date of Tack coat	Station		Side of Tack coat	Area of Tack coat	Intersection Area m2	Total Area M2	Bitumen Consumption	Application Rate By Dip Lit/m2	Application Rate Bt Tray Test Lit/m2												
12	RR-1	25-May-18	0+380	0+840	LHS	1633	61.93	2038.19	1300	0.64	0.66												
			0+380	0+440	RHS	252																	
			0+809	0+840	RHS	91.26																	
			Total				1976.26																
13	R-21	30-May-18	0+200	0+563	BHS	1778.7	0	1778.70	1100	0.62	0.58												
14	R-37	30-May-18	0+256	0+456	BHS	920	0	920.00	600	0.65	0.59												
Total									19750														
Required tack coat is 0.40 to 0.60Lit/M2 According to Road Note -3,Section 711.2																							
Specific Gravity of Bitumen 1.025																							
Contractor						Consultant																	
ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD						BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL																	
 Checked By Engineer						 Submitted By Contract Manager						 Verified By QTY Engineer/CSE						 Approved By Team Leader					

3000

19750



REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No: RUDP/ICB/BRT-012

Summary Sheet of Monthly Test Report

Month	May
Year	2018

Location:- R5 (South Of Traffic Chowk)

Type of Material	Base
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S.N.	Lab.Ref no.	Location of Sample	Source of Sample	Date of Testing	Sieve Size in mm / % passing By Weight								MDD	OMC	PI%	L.A.A. %	El and El %	A.I.V. %	CBR %	Remarks
					40	31.5	20	10	4.75	2.36	0.6	0.075								
1	RUDP-B-01	R5, 0+100	Chisang Khola	5-May-18	100	88.97	72.03	57.56	40.84	29.35	16.97	5.60			NP	34.80	20.20/18.05	19.29		
2	RUDP-B-02	R5, 0+200	Chisang Khola	5-May-18	100	87.81	66.98	51.43	37.07	26.35	16.43	6.17	2.244	5.50	NP	33.50	23.88/17.70	21.56	86.50	
3	RUDP-B-03	R5, 0+300	Chisang Khola	5-May-18	100	87.14	67.76	52.97	41.72	29.80	15.57	7.12			NP	31.60	23.55/18.66	22.57		
4	RUDP-B-04	R5, 0+400	Chisang Khola	6-May-18	100	89.33	73.11	59.27	44.56	30.36	18.64	7.10	2.239	5.75	NP	33.80	20.71/18.50	21.95	91.40	
5	RUDP-B-05	R5, 0+500	Chisang Khola	6-May-18	100	87.22	69.16	52.57	40.66	28.46	17.14	7.41			NP	33.62	23.82/18.43	20.96		
3	RUDP-B-06	R5, 0+600	Chisang Khola	6-May-18	100	88.38	72.51	51.61	38.66	27.50	14.59	7.02			NP	30.20	24.25/19.58	21.85		
Spec. Limit :					100	85-100	62-92	40-70	26-55	21-53	12-28	2-10				< 45	< 35	< 35	> 80	

Contractor

Consultant

ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD

BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL

[Signature]
Checked By
Engineer

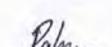


[Signature]
Submitted By
Contract Manager

[Signature]
Verified By
QTY Engineer/CSE

[Signature]
Approved By
Team Leader

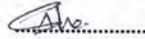


REGIONAL URBAN DEVELOPMENT PROJECT																				
Biratnagar Metropolitan City																				
Contract No: RUDP/ICB/BRT-02																				
Summary Sheet of Monthly Test Report																				
Location:- R-9															Month		May			
															Year		2018			
															Type of Material			Base		
S.N.	Lab.Ref no.	Location of Sample	Source of Sample	Date of Testing	Sieve Size in mm / % passing By Weight								MDD	OMC	PI%	L.A.A. %	Fl and El %	A.I.V. %	CBR %	Remarks
					40	31.5	20	10	4.75	2.36	0.6	0.075								
1	RUDP-B-01	R-30, 0+070	Chisang Khola	16-May-18	100	88.03	72.12	51.59	37.89	29.91	16.46	7.33	2.240	6.00	NP	32.64	23.99/17.25	23.33	84.00	
					Spec. Limit :	100	85-100	62-92	40-70	26-55	21-53	12-28	2-10			< 45	< 35	< 35	> 80	
Contractor										Consultant										
ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD 										BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL										
 Checked By Engineer					 Submitted By Contract Manager					 Verified By QTY Engineer/CSE					 Approved By Team Leader					

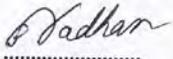
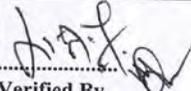
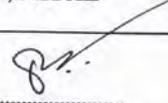


REGIONAL URBAN DEVELOPMENT PROJECT																				
Biratnagar Metropolitan City																				
Contract No: RUDP/ICB/BRT-02																				
Summary Sheet of Monthly Test Report																				
Location:- RR-2															Month		May			
															Year		2018			
															Type of Material			Base		
S.N.	Lab.Ref no.	Location of Sample	Source of Sample	Date of Testing	Sieve Size in mm / % passing By Weight								MDD	OMC	PI%	L.A.A. %	Fl and El %	A.I.V. %	CBR %	Remarks
					40	31.5	20	10	4.75	2.36	0.6	0.075								
1	RUDP-B-01	RR-2, 0+100	Chisang Khola	9-May-18	100	90.13	74.68	54.36	39.85	29.09	17.36	8.25			NP	61.70	22.17/18.44	19.45		
2	RUDP-B-02	RR-2, 0+200	Chisang Khola	9-May-18	100	87.31	71.02	50.80	37.09	25.83	15.62	7.06	2.242	5.10	NP	64.62	23.96/18.56	21.98	83.50	
3	RUDP-B-03	RR-2, 0+300	Chisang Khola	10-May-18	100	88.11	68.90	54.10	42.92	30.77	16.64	7.01			NP	33.18	21.18/17.45	23.72		
4	RUDP-B-04	RR-2, 0+400	Chisang Khola	11-May-18	100	88.69	73.18	54.39	41.18	30.00	16.88	6.62	2.253	4.70	NP	31.64	20.24/16.29	21.66	88.00	
5	RUDP-B-05	RR-2, 0+500	Chisang Khola	11-May-18	100	88.19	71.55	49.50	37.69	26.36	15.28	7.09			NP	35.18	20.04/18.15	20.85		
Spec. Limit :					100	85-100	62-92	40-70	26-55	21-53	12-28	2-10				< 45	< 35	< 35	> 80	
Contractor										Consultant										
ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD 										BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL										
 Checked By Engineer					 Submitted By Contract Manager					 Verified By QTY Engineer/CSE					 Approved By Team Leader					

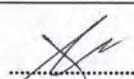
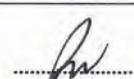
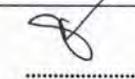


REGIONAL URBAN DEVELOPMENT PROJECT																				
Biratnagar Metropolitan City																				
Contract No: RUDP/ICB/BRT-02																				
Summary Sheet of Monthly Test Report																				
Location:-S11-B															Month		May			
															Year		2018			
															Type of Material		Base			
S.N.	Lab.Ref no.	Location of Sample	Source of Sample	Date of Testing	Sieve Size in mm / % passing By Weight								MDD	OMC	PI%	L.A.A. %	Fl and El %	A.I.V. %	CBR %	Remarks
					40	31.5	20	10	4.75	2.36	0.6	0.075								
1	RUDP-B-01	S11-B,(0+080)	Chisang Khola	31-May-18	100	86.91	67.45	53.39	40.91	32.06	18.26	6.23	2.239	5.35	NP	51.50	22.99/17.50	19.37	88.50	
Spec. Limit :					100	85-100	62-92	40-70	26-55	21-53	12-28	2-10				< 45	< 35	< 35	>80	
Contractor											Consultant									
ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD 											BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL									
 Checked By Engineer				 Submitted By Contract Manager				 Verified By QTY Engineer/CSE				 Approved By Team Leader								



REGIONAL URBAN DEVELOPMENT PROJECT																				
Biratnagar Metropolitan City																				
Contract No: RUDP/ICB/BRT-02																				
Summary Sheet of Monthly Test Report																				
Location:- R-30 ✓															Month		May ✓			
															Year		2018			
															Type of Material			Base ✓		
S.N.	Lab.Ref no.	Location of Sample	Source of Sample	Date of Testing	Sieve Size in mm / % passing By Weight								MDD	OMC	PI%	L.A.A. %	Fl and El %	A.I.V. %	CBR %	Remarks
					40	31.5	20	10	4.75	2.36	0.6	0.075								
1	RUDP-B-01	R-30, 0+080	Chisang Khola	13-May-18	100	88.04	71.42	53.43	39.57	28.60	16.74	8.21	2.236	5.00	NP	30.58	23.10/17.56	21.40	87.00	
Spec. Limit :					100	85-100	62-92	40-70	26-55	21-53	12-28	2-10				< 45	< 35	< 35	> 80	
Contractor										Consultant										
ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD										BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL										
 Checked By Engineer					 Submitted By Contract Manager					 Verified By QTY Engineer/CSE					 Approved By Team Leader					



REGIONAL URBAN DEVELOPMENT PROJECT																				
Biratnagar Metropolitan City																				
Contract No: RCSP/ICB/BT-01																				
Summary Sheet of Monthly Test Report																				
Location:- R25														Month		May				
														Year		2018				
														Type of Material		Base				
S.N.	Lab.Ref no.	Location of Sample	Source of Sample	Date of Testing	Sieve Size in mm / % passing By Weight								MDD	OMC	PI%	L.A.A. %	FI and EI %	A.I.V. %	CBR %	Remarks
					40	31.5	20	10.	4.75	2.36	0.6	0.075								
1	RUDP-B-01	R25, 0+100	Chisang Khola	1-May-18	100	91.53	70.36	49.48	64.14	25.00	14.93	5.16			NP	33.44	22.21/15.88	20.62		
2	RUDP-B-02	R25, 0+200	Chisang Khola	1-May-18	100	89.99	72.98	49.04	64.30	24.53	13.64	6.66	2.248	5.60	NP	32.84	20.58/15.35	19.92	84.20	
3	RUDP-B-03	R25, 0+300	Chisang Khola	1-May-18	100	89.33	72.97	52.25	68.43	29.93	14.51	6.84			NP	60.40	21.39/14.88	20.93		
4	RUDP-B-04	R25, 0+400	Chisang Khola	2-May-18	100	89.84	72.99	53.85	40.91	60.03	13.89	5.86	2.242	5.90	NP	62.62	22.11/18.24	21.08	85.00	
5	RUDP-B-05	R25, 0+500	Chisang Khola	2-May-18	100	88.70	72.72	51.53	41.24	70.52	16.54	6.40			NP	33.10	19.77/16.71	21.10		
Spec. Limit :					100	85-100	62-92	40-70	26-55	21-53	12-28	2-10				< 45	< 35	< 25	>80	
Contractor										Consultant										
ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD										BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL										
 Checked By Engineer					 Submitted By Contract Manager					 Verified By QTY Engineer/CSE					 Approved By Team Leader					



REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

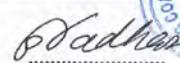
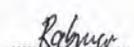
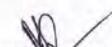
Contract No: RUDP/ICB/BRT-02

Summary Sheet of Monthly Test Report

Month	May
Year	2018
Type of Material	Base

Location:- R-37

S.N.	Lab.Ref no.	Location of Sample	Source of Sample	Date of Testing	Sieve Size in mm / % passing By Weight								MDD	OMC	PI%	L.A.A. %	Fl and El %	A.I.V. %	CBR %	Remarks
					40	31.5	20	10	4.75	2.36	0.6	0.075								
1	RUDP-B-01	R-37, 0+100	Chisang Khola	12-May-18	100	88.36	71.94	51.39	40.50	29.72	19.51	7.80			NP	33.50	21.11/18.30	20.40		
2	RUDP-B-02	R37, 0+200	Chisang Khola	12-May-18	100	87.76	71.22	52.56	41.30	30.24	16.25	7.67	2.238	5.70	NP	31.80	25.21/20.71	22.41	90.0	
3	RUDP-B-03	R37, 0+300	Chisang Khola	13-May-18	100	91.98	74.80	52.48	37.65	27.74	15.89	5.97			NP	34.84	23.82/19.83	21.70		
4	RUDP-B-04	R37, 0+400	Chisang Khola	13-May-18	100	90.46	74.84	54.66	40.42	30.54	17.84	7.36	2.251	5.10	NP	30.28	19.85/17.17	20.23	92.0	
Spec. Limit :					100	85-100	62-92	40-70	26-55	21-53	12-28	2-10				< 45	< 35	< 35	> 80	

Contractor		Consultant	
ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD 		BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL	
 Checked By Engineer	 Submitted By Contract Manager	 Verified By QTY Engineer/CSE	 Approved By Team Leader



REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No: RUDP/ICB/BRT-02

Summary Sheet of Monthly Test Report

Month	May
Year	2018
Type of Material	Base

Location:- B2-2

S.N.	Lab.Ref no.	Location of Sample	Source of Sample	Date of Testing	Sieve Size in mm / % passing By Weight								MDD	OMC	PI%	L.A.A. %	Fl and El %	A.I.V. %	CBR %	Remarks
					40	31.5	20	10	4.75	2.36	0.6	0.075								
1	RUDP-B-04	B2-2, 0+450	Chisang Khola	2-May-18	100	87.97	68.06	48.55	34.88	25.22	14.70	7.02			NP	34.44	21.87/15.09	22.24		
2	RUDP-B-05	B2-2, 0+500	Chisang Khola	2-May-18	100	89.61	70.07	50.50	35.72	27.31	16.50	7.69			NP	30.10	20.82/17.87	21.02		
3	RUDP-B-06	B2-2, 0+600	Chisang Khola	2-May-18	100	90.77	74.40	49.51	35.57	25.04	15.17	6.29	2.242	4.80	NP	33.08	20.37/16.62	23.20	90.80	
4	RUDP-B-07	B2-2, 0+700	Chisang Khola	3-May-18	100	87.72	72.23	51.01	36.24	24.63	14.97	6.38			NP	31.64	21.48/19.23	22.50		
5	RUDP-B-08	B2-2, 0+800	Chisang Khola	3-May-18	100	87.81	70.48	48.74	35.63	27.11	15.63	6.34	2.239	5.00	NP	29.62	20.54/18.93	22.44	86.80	
6	RUDP-B-09	B2-2, 0+900	Chisang Khola	3-May-18	100	88.90	73.35	51.91	38.75	28.17	14.86	7.79			NP	30.40	23.63/20.01	20.48		
7	RUDP-B-10	B2-2, 1+000	Chisang Khola	4-May-18	100	90.21	71.78	49.61	35.03	26.08	13.00	7.08			NP	33.20	20.47/15.31	20.90		
8	RUDP-B-11	B2-2, 1+100	Chisang Khola	4-May-18	100	88.40	68.84	48.14	34.83	24.86	15.94	7.54			NP	34.82	20.67/16.20	24.95		
Spec. Limit :					100	85-100	62-92	40-70	26-55	21-53	12-28	2-10				< 45	< 35	< 35	> 80	

Contractor

Consultant

ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL
ENGINEERING CO. LTD

BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE
WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS
& ARCHITECTS (P) LTD, KATHMANDU, NEPAL

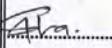
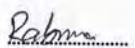
Checked By
Engineer

Submitted By
Contract Manager

Verified By
QTY Engineer/CSE

Approved By
Team Leader



REGIONAL URBAN DEVELOPMENT PROJECT																	
Biratnagar Metropolitan City																	
Contract No:- RUDP/ICB/BRT-02																	
Summary Sheet of Monthly Test Report																	
Location:-R-22															Month:	May	
															Year	2018	
															Type of Material	Sub-base	
Sn.	Lab.Ref no.	Location of Sample	Source of Sample	Date of Testing	Sieve Size in mm / passing % By Weight								MDD	OMC	PI%	Remarks	
					63	40	20	10	4.75	2.36	1.18	0.075					
1	RUDP-SB-01	R-22,0+100	Chisang Khola	21-May-18	100	88.72	68.35	53.83	41.05	29.12	18.86	8.33					
2	RUDP-SB-02	R-22,0+225	Chisang Khola	21-May-18	100	88.88	68.85	54.46	41.92	30.95	20.34	9.19	2.176	6.95	3.01		
3	RUDP-SB-04	R-22,0+300	Chisang Khola	22-May-18	100	86.71	66.50	52.25	42.02	31.56	19.63	8.26					
4	RUDP-SB-05	R-22,0+375	Chisang Khola	22-May-18	100	85.66	63.94	48.87	38.88	28.57	20.78	7.87	2.180	6.21	2.81		
					Spec. Limit :	100	70-100	50-85	40-75	30-60	20-45	15-37	4-15				
Contractor										Consultant							
ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD										BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL							
 Checked By Engineer					 Submitted By Contract Manager					 Verified By Qty Enginner/CSE					 Approved By Team Leader		

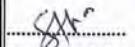
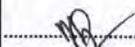


REGIONAL URBAN DEVELOPMENT PROJECT												
Biratnagar Metropolitan City												
Contract No:- RUDP/ICB/BRT-02												
Summary Sheet of Monthly Test Report of 20mm Agg.												
										Month	May	
										Year	2018	
										Type of Material	20 mm Agg	
S.n.	Lab.Ref.no.	Date of Testing	Location of Sample	Source of Sample	Sieve Size in mm / % Passing by				L.A.A.%	Fl and EI %	A.I.V.%	Remarks
					40	20	10	4.75				
1	RUDP-CA-63	2-May-18	CN2CN3	Chisang Khola	100.00	95.74	40.34	3.69	34.96	19.68/17.00	16.96	
2	RUDP-CA-64	3-May-18	DDC-Yard	Chisang Khola	100.00	96.36	33.98	4.35	29.48	19.60/16.70	18.70	
3	RUDP-CA-65	4-May-18	N-3	Chisang Khola	100.00	96.71	41.51	3.47	23.00	19.51/18.69	20.12	
4	RUDP-CA-66	5-May-18	Koshi-yard	Chisang Khola	100.00	96.45	39.97	5.13	27.00	18.08/16.97	18.29	
5	RUDP-CA-67	6-May-18	T3 L21	Chisang Khola	100.00	96.88	40.91	4.95	28.04	19.11/17.37	19.24	
6	RUDP-CA-68	7-May-18	R-122	Chisang Khola	100.00	95.81	42.51	2.49	26.16	19.11/17.37	20.01	
7	RUDP-CA-69	8-May-18	T3 L39	Chisang Khola	100.00	97.19	39.72	3.37	28.76	19.59/18.70	20.85	
8	RUDP-CA-70	9-May-18	R-2	Chisang Khola	100.00	95.49	41.39	3.04	27.44	22.00/17.52	18.49	
9	RUDP-CA-71	10-May-18	N-3	Chisang Khola	100.00	96.33	40.89	3.05	30.10	22.99/18.40	21.14	
10	RUDP-CA-72	12-May-18	R-33	Chisang Khola	100.00	97.00	38.25	1.96	24.84	19.20/18.58	19.58	
11	RUDP-CA-73	15-May-18	R-36	Chisang Khola	100.00	96.36	45.50	4.63	30.40	21.41/17.26	22.00	
12	RUDP-CA-74	17-May-18	R-21(Sombare hatiya)	Chisang Khola	100.00	96.61	37.01	3.50	27.44	20.21/18.47	19.66	
13	RUDP-CA-75	17-May-18	Rani-Site	Chisang Khola	100.00	96.39	40.87	4.80	30.48	22.04/19.10	21.55	
14	RUDP-CA-76	18-May-18	East of Xenial Hotel	Chisang Khola	100.00	96.35	39.08	3.98	26.96	21.30/17.91	18.17	
15	RUDP-CA-77	19-May-18	R-11	Chisang Khola	100.00	96.65	40.03	4.71	29.62	20.72/18.87	20.43	
16	RUDP-CA-78	20-May-18	Madumara-Yard	Chisang Khola	100.00	97.09	35.67	3.97	28.76	20.31/18.86	22.17	
17	RUDP-CA-79	22-May-18	DDC-Yard	Chisang Khola	100.00	97.63	41.82	4.36	28.36	20.33/19.26	19.98	
18	RUDP-CA-80	23-May-18	South of Xenial Hotel	Chisang Khola	100.00	97.21	38.99	3.33	29.04	21.98/18.45	23.58	
19	RUDP-CA-81	23-May-18	CN2CN3	Chisang Khola	100.00	95.80	44.53	2.71	31.50	18.19/17.87	22.14	
Spec. Limit :					100	95-100	25-55	0-10	<35	< 25	< 25	
Contractor						Consultant						
ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD						BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL						
Checked By  Engineer						Submitted By  Contract Manager		Verified By  Qty Engineer/CSE		Approved By  Team Leader		



REGIONAL URBAN DEVELOPMENT PROJECT															
Biratnagar Metropolitan City															
Contract No:- RUDP/ICB/BRT-02															
Summary Sheet of Monthly Test Report of 20mm Agg.															
										Month	Year				
										May	2018				
										Type of Material	20 mm Agg				
S.n.	Lab.Ref no.	Date of Testing	Location of Sample	Source of Sample	Sieve Size in mm / % Passing by				L.A.A.%	Fl and EI %	A.I.V.%	Remarks			
					40	20	10	4.75							
20	RUDP-CA-82	25-May-18	R-6	Chisang Khola	100.00	96.41	43.59	3.77	30.78	18.22/17.42	21.60				
					Spec. Limit :				100	95-100	25-55	0-10	<35	<25	<25
Contractor						Consultant									
ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD						BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL									
Checked By Engineer						Submitted By Contract Manager			Verified By Qty Engineer/CSE			Approved By Team Leader			



REGIONAL URBAN DEVELOPMENT PROJECT													
Biratnagar Metropolitan City													
Contract No:- RUDP/ICB/BRT-02													
Summary Sheet of Monthly Test Report of Concrete Sand													
												Month	May
												Year	2018
												Type of Material	Concrete Sand
S.n.	Lab.Ref no.	Date of Test	Location of Sample	Source of Sample	Sieve Size in mm / % Passing by weight							Clay Content%	Remarks
					10	4.75	2.36	1.18	0.600	0.300	0.150		
1	RUDP-CS-63	2-May-18	CN2CN3	Chisang Khola	100.00	93.80	71.73	53.90	24.92	8.84	3.32	1.23	
2	RUDP-CS-64	3-May-18	DDC-Yard	Chisang Khola	100.00	95.80	64.87	49.38	28.28	12.16	4.10	1.57	
3	RUDP-CS-65	3-May-18	T3 L21	Chisang Khola	100.00	96.26	68.77	47.48	33.75	15.03	2.43	1.39	
4	RUDP-CS-66	3-May-18	T3 L39	Chisang Khola	100.00	95.96	72.67	51.69	34.27	15.11	2.39	1.42	
5	RUDP-CS-67	4-May-18	R-122	Chisang Khola	100.00	96.03	76.78	49.20	32.04	13.10	3.57	1.20	
6	RUDP-CS-68	5-May-18	N-3	Chisang Khola	100.00	93.36	72.90	45.48	30.12	10.81	5.02	1.18	
7	RUDP-CS-69	7-May-18	Madhumara-Yard	Chisang Khola	100.00	92.75	75.52	46.86	31.84	12.08	4.99	1.04	
8	RUDP-CS-70	7-May-18	Kosh-yard	Chisang Khola	100.00	91.87	72.39	45.44	31.76	14.84	7.55	1.33	
9	RUDP-CS-71	9-May-18	R-6	Chisang Khola	100.00	92.95	74.50	50.53	34.95	15.26	7.22	1.66	
10	RUDP-CS-72	11-May-18	R-2	Chisang Khola	100.00	91.95	67.80	48.22	32.54	14.66	5.42	1.67	
11	RUDP-CS-73	11-5-187	R-36	Chisang Khola	100.00	92.74	74.59	52.34	33.33	17.77	8.40	1.40	
12	RUDP-CS-74	11-May-18	R-33	Chisang Khola	100.00	92.44	67.75	48.71	26.70	13.01	5.07	1.08	
13	RUDP-CS-75	13-May-18	R-122	Chisang Khola	100.00	92.29	70.42	56.88	26.67	14.69	5.73	1.11	
14	RUDP-CS-76	15-May-18	R-21	Chisang Khola	100.00	91.73	67.15	51.49	31.73	13.25	6.91	1.24	
15	RUDP-CS-77	18-May-18	Rani Sie	Chisang Khola	100.00	93.21	71.09	46.53	26.54	11.67	6.86	1.38	
16	RUDP-CS-78	19-May-18	East of Xenial Hotel	Chisang Khola	100.00	91.35	72.18	44.98	24.90	11.64	6.14	1.21	
Spec. Limit :					100	90~100	85~100	75~100	60~79	12~40	0~10	<3%	
Contractor							Consultant						
ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD							BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL						
 Checked By Engineer							 Submitted By Contract Manager						
 Verified By Qty Engineer/CSE							 Approved By Team Leader						



REGIONAL URBAN DEVELOPMENT PROJECT													
Biratnagar Metropolitan City													
Contract No:- RUDP/ICB/BRT-02													
Summary Sheet of Monthly Test Report of Concrete Sand													
										Month Year		May 2018	
										Type of Material		Concrete Sand	
S.n.	Lab.Ref no.	Date of Test	Location of Sample	Source of Sample	Sieve Size in mm / % Passing by weight							Clay Content%	Remarks
					10	4.75	2.36	1.18	0.600	0.300	0.150		
17	RUDP-CS-79	21-May-18	R-11	Chisang Khola	100.00	94.49	78.10	50.28	32.22	15.83	6.83	1.48	
18	RUDP-CS-80	21-May-18	DDC-Yard	Chisang Khola	100.00	91.92	66.36	43.36	22.84	12.28	5.19	1.68	
19	RUDP-CS-81	25-May-18	CN2CN3	Chisang Khola	100.00	94.75	71.98	39.92	20.12	9.43	5.25	1.27	
20	RUDP-CS-82	25-May-18	South of Xenial Hotel	Chisang Khola	100.00	93.61	80.75	47.49	23.73	10.86	4.88	1.59	
Spec. Limit :					100	90~100	85~100	75~100	60~79	12~40	0~10	<3%	
Contractor						Consultant							
ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD						BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL							
 Checked By Engineer		 Submitted By Contract Manager		 Verified By Qty Engineer/CSE		 Approved By Team Leader							



REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No: RUDP/ICB/BRT-02

Summary Sheet of Monthly Test Report

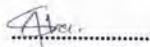
Location:-B-1

Month	March
Year	2018
Type of Material	Base

S.N.	Lab.Ref no.	Location of Sample	Source of Sample	Date of Testing	Sieve Size in mm / % passing By Weight								MDD	OMC	PI%	L.A.A. %	Fl and El %	A.I.V. %	CBR %	Remarks
					40	31.5	20	10	4.75	2.36	0.600	.0.075								
1	RUDP-B-01	B1, 0+100	Chisang Khola	8-Mar-18	100	90.40	69.88	55.22	39.64	25.67	13.58	5.05	2.242	6.00	NP	29.68	22.83/16.88	20.84		
2	RUDP-B-02	B1, 0+200	Chisang Khola	8-Mar-18	100	89.78	68.43	57.21	38.79	31.61	16.10	2.52			NP	30.98	24.32/18.28	21.40		
3	RUDP-B-03	B1, +300	Chisang Khola	8-Mar-18	100	90.84	67.61	55.15	37.62	29.63	14.95	2.54			NP	30.40	19.04/18.30	20.43		
4	RUDP-B-04	B1, 0+400	Chisang Khola	9-Mar-18	100	88.90	65.64	50.78	34.94	25.77	15.03	4.98	2.247	6.25	NP	32.96	20.46/19.08	23.05		
5	RUDP-B-05	B1, 0+500	Chisang Khola	9-Mar-18	100	91.06	69.57	54.02	36.81	24.66	14.91	6.44			NP	32.62	18.18/16.38	21.00		
6	RUDP-B-06	B1, 0+600	Chisang Khola	9-Mar-18	100	91.58	71.04	54.30	38.52	27.44	18.30	6.55	2.245	6.35	NP	31.64	21.86/18.63	21.46		
7	RUDP-B-07	B1, 0+700	Chisang Khola	9-Mar-18	100	91.78	71.84	56.55	40.30	27.91	17.63	3.02			NP	33.05	18.07/17.75	21.33		
8	RUDP-B-08	B1, 0+800	Chisang Khola	9-Mar-18	100	91.03	69.61	54.13	39.48	26.45	15.40	5.72	2.244	6.60	NP	30.30	19.91/17.48	21.78		
9	RUDP-B-09	B1, 0+900	Chisang Khola	9-Mar-18	100	90.41	69.59	55.27	40.21	24.53	13.27	5.73			NP	33.50	18.11/17.61	21.39		
10	RUDP-B-10	B1, 1+000	Chisang Khola	10-Mar-18	100	90.50	67.51	51.31	37.05	27.70	14.54	5.74	2.241	6.00	NP	31.76	19.50/18.03	21.32		
11	RUDP-B-11	B1, 1+100	Chisang Khola	10-Mar-18	100	91.14	70.09	54.86	38.76	28.10	18.60	6.88			NP	30.68	21.37/19.18	21.78		
12	RUDP-B-12	B1, 1+150	Chisang Khola	10-Mar-18	100	91.48	64.30	53.66	37.09	20.12	14.80	2.96	2.249	5.00	NP	30.12	18.53/16.69	21.81		
Spec. Limit :					100	85-100	62-92	40-70	26-55	21-53	12-28	2-10				< 45	< 35	< 35	> 80	

Contractor		Consultant	
ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD		BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL	
 Checked By Engineer	 Submitted By Contract Manager	 Verified By QTY Engineer/CSE	 Approved By Team Leader



REGIONAL URBAN DEVELOPMENT PROJECT																					
Biratnagar Metropolitan City																					
Contract No: RUDP/ICB/BRT-02																					
Summary Sheet of Monthly Test Report																					
Location:- R21(East of Sombare hativa)															Month	May					
															Year	2018					
															Type of Material	Base					
S.N.	Lab. Ref no.	Location of Sample	Source of Sample	Date of Testing	Sieve Size in mm / % passing By Weight								MDD	OMC	PI%	L.A.A. %	Fl and El %	A.I.V. %	CBR %	Remarks	
					40	31.5	20	10	4.75	2.36	0.6	0.075									
1	RUDP-B-01	R21, 0+100	Chisang Khola	15-May-18	100.00	91.58	64.38	53.72	37.13	30.16	14.82	2.96	2.247	5.90	NP	27.20	21.52/20.15	23.22	85.00		
2	RUDP-B-02	R21, 0+200	Chisang Khola	15-May-18	100.00	89.04	72.12	50.84	38.65	29.67	18.42	5.08			NP	30.80	24.10/17.90	21.83			
3	RUDP-B-03	R21, 0+300	Chisang Khola	16-May-18	100.00	87.93	73.80	54.20	43.41	33.45	18.84	5.74	2.239	5.70	NP	29.50	23.06/18.30	20.14	87.00		
4	RUDP-B-04	R21, 0+400	Chisang Khola	16-May-18	100.00	88.92	71.96	54.39	36.59	30.79	14.73	4.69			NP	27.50	23.88/18.17	20.51			
5	RUDP-B-05	R21, 0+500	Chisang Khola	16-May-18	100	89.16	74.56	54.44	40.90	30.47	16.29	8.20	2.244	5.20	NP	32.50	23.90/18.44	21.81	90.20		
Spec. Limit :					100	85-100	62-92	40-70	26-55	21-53	12-28	2-10				< 45	< 35	< 35	> 80		
Contractor										Consultant											
ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD										BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL											
 Checked By Engineer					 Submitted By Contract Manager					 Verified By QTY Engineer/CSE					 Approved By Team Leader						



REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No:- RUDP/ICB/BRT-02

Summary Sheet of Concrete Cube Test Report

S.N.	Location	Lab Ref.no.	Type of Cement	Brand of Cement	Source of Sand+Agg.	Date of Casting	Month		May		Concr ete Grade
							Year		2018		
							Type of Material		Conc. Cube		
							Date of Testing		Strength, N/mm ²		
							7 Days	28 Days	7 Days	28 Days	
1	N-3	RUDP-215	Arghakhachi	OPC	Chisang Khola	3-Apr-18	10-Apr-18	1-May-18		22.58	M20
2	CN2CN3	RUDP-216	Arghakhachi	OPC	Chisang Khola	3-Apr-18	10-Apr-18	1-May-18		23.41	M20
3	R-86	RUDP-217	Arghakhachi	OPC	Chisang Khola	3-Apr-18	10-Apr-18	1-May-18		21.75	M20
4	Koshi-yard	RUDP-218	Arghakhachi	OPC	Chisang Khola	3-Apr-18	10-Apr-18	1-May-18		22.65	M20
5	DDC-Yard	RUDP-219	Arghakhachi	OPC	Chisang Khola	3-Apr-18	10-Apr-18	1-May-18		22.65	M20
6	DDC-Yard	RUDP-220	Arghakhachi	OPC	Chisang Khola	3-Apr-18	3-Apr-18	1-May-18		21.52	M20
7	Rani Site (Haditali Hatt)	RUDP-221	Arghakhachi	OPC	Chisang Khola	3-Apr-18	10-Apr-18	1-May-18		22.13	M20
8	R-75	RUDP-222	Arghakhachi	OPC	Chisang Khola	4-Apr-18	11-Apr-18	2-May-18		21.75	M20
9	R-7(A)	RUDP-223	Arghakhachi	OPC	Chisang Khola	4-Apr-18	11-Apr-18	2-May-18		22.43	M20
10	N-9	RUDP-224	Arghakhachi	OPC	Chisang Khola	4-Apr-18	11-Apr-18	2-May-18		22.80	M20
11	R-86	RUDP-225	Arghakhachi	OPC	Chisang Khola	4-Apr-18	11-Apr-18	2-May-18		21.83	M20
12	Rani Site	RUDP-226	Arghakhachi	OPC	Chisang Khola	4-Apr-18	11-Apr-18	2-May-18		22.05	M20
13	CN2CN3	RUDP-227	Arghakhachi	OPC	Chisang Khola	5-Apr-18	12-Apr-18	3-May-18		22.73	M20
14	Koshi-yard	RUDP-228	Arghakhachi	OPC	Chisang Khola	5-Apr-18	12-Apr-18	3-May-18		21.45	M20
15	N-9	RUDP-229	Arghakhachi	OPC	Chisang Khola	5-Apr-18	12-Apr-18	3-May-18		23.26	M20
16	R-86	RUDP-230	Arghakhachi	OPC	Chisang Khola	5-Apr-18	12-Apr-18	3-May-18		23.33	M20
17	CN2CN3	RUDP-231	Arghakhachi	OPC	Chisang Khola	5-Apr-18	12-Apr-18	3-May-18		21.30	M20
18	Koshi-yard	RUDP-232	Arghakhachi	OPC	Chisang Khola	6-Apr-18	13-Apr-18	4-May-18		23.03	M20
19	Rani Site	RUDP-233	Arghakhachi	OPC	Chisang Khola	6-Apr-18	13-Apr-18	4-May-18		21.30	M20
20	N-9	RUDP-234	Arghakhachi	OPC	Chisang Khola	6-Apr-18	13-Apr-18	4-May-18		23.93	M20
21	R-75	RUDP-235	Arghakhachi	OPC	Chisang Khola	6-Apr-18	13-Apr-18	4-May-18		22.20	M20
22	R-86	RUDP-236	Arghakhachi	OPC	Chisang Khola	6-Apr-18	13-Apr-18	4-May-18		21.75	M20
23	DDC-Yard	RUDP-237	Arghakhachi	OPC	Chisang Khola	6-Apr-18	13-Apr-18	4-May-18		22.50	M20
25	Rani Site (Mahendra Chowk)	RUDP-238	Arghakhachi	OPC	Chisang Khola	6-Apr-18	13-Apr-18	4-May-18		21.07	M20
26	CN2CN3	RUDP-239	Arghakhachi	OPC	Chisang Khola	6-Apr-18	13-Apr-18	4-May-18		21.83	M20
27	R-75	RUDP-240	Arghakhachi	OPC	Chisang Khola	6-Apr-18	13-Apr-18	4-May-18		22.80	M20
28	DDC-Yard	RUDP-241	Arghakhachi	OPC	Chisang Khola	7-Apr-18	14-Apr-18	5-May-18		22.28	M20
29	DDC-Yard	RUDP-242	Arghakhachi	OPC	Chisang Khola	7-Apr-18	14-Apr-18	5-May-18		32.21	M30
30	CN2CN3	RUDP-243	Arghakhachi	OPC	Chisang Khola	7-Apr-18	14-Apr-18	5-May-18		23.86	M20
31	Koshi Yard	RUDP-244	Arghakhachi	OPC	Chisang Khola	7-Apr-18	14-Apr-18	5-May-18		23.10	M20
32	N-9	RUDP-245	Arghakhachi	OPC	Chisang Khola	7-Apr-18	14-Apr-18	5-May-18		23.48	M20
33	R-86	RUDP-246	Arghakhachi	OPC	Chisang Khola	7-Apr-18	14-Apr-18	5-May-18		21.30	M20
34	R-75	RUDP-247	Arghakhachi	OPC	Chisang Khola	7-Apr-18	14-Apr-18	5-May-18		22.28	M20

**ZHONGHENG CONSTRUCTION GROUP
INTERNATIONAL ENGINEERING CO. LTD**

**BUILDING DESIGN AUTHORITY (P) LTD IN JOINT
VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS
ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU,
NEPAL**

Shw
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**Checked By
Engineer**

Rabm
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**Submitted By
Contract Manager**

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**Verified By
Qty Engineer/CSE**

[Signature]
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**Approved By
Team Leader**



REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

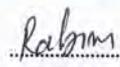
Contract No:- RUDP/ICB/BRT-02

Summary Sheet of Concrete Cube Test Report

S.N.	Location	Lab Ref.no.	Type of Cement	Brand of Cement	Source of Sand+Agg.	Date of Casting	Month		May		Concrete Grade
							Year		2018		
							Type of Material		Conc. Cube		
							Date of Testing		Strength, N/mm ²		
		7 Days	28 Days	7 Days	28 Days						
35	R-7(A)	RUDP-248	Arghakhachi	OPC	Chisang Khola	7-Apr-18	14-Apr-18	5-May-18		21.07	M20
36	R-183	RUDP-249	Arghakhachi	OPC	Chisang Khola	8-Apr-18	15-Apr-18	6-May-18		22.13	M20
37	CN2CN3	RUDP-250	Arghakhachi	OPC	Chisang Khola	8-Apr-18	15-Apr-18	6-May-18		22.28	M20
38	Koshi Yard	RUDP-251	Arghakhachi	OPC	Chisang Khola	8-Apr-18	15-Apr-18	6-May-18		22.28	M20
39	DDC-yard	RUDP-252	Arghakhachi	OPC	Chisang Khola	8-Apr-18	15-Apr-18	6-May-18		23.18	M20
40	N-9	RUDP-253	Arghakhachi	OPC	Chisang Khola	8-Apr-18	15-Apr-18	6-May-18		23.18	M20
41	R-86	RUDP-254	Arghakhachi	OPC	Chisang Khola	8-Apr-18	15-Apr-18	6-May-18		22.65	M20
42	Rani Site	RUDP-255	Arghakhachi	OPC	Chisang Khola	8-Apr-18	15-Apr-18	6-May-18		22.05	M20
43	R-86	RUDP-256	Arghakhachi	OPC	Chisang Khola	8-Apr-18	15-Apr-18	6-May-18		22.35	M20
44	Xenial Hotel	RUDP-257	Arghakhachi	OPC	Chisang Khola	8-Apr-18	15-Apr-18	6-May-18		20.85	M20
45	CN2CN3	RUDP-258	Arghakhachi	OPC	Chisang Khola	8-Apr-18	15-Apr-18	6-May-18		21.37	M20
46	CN2CN3	RUDP-259	Arghakhachi	OPC	Chisang Khola	8-Apr-18	15-Apr-18	6-May-18		21.90	M20
47	R-86	RUDP-260	Arghakhachi	OPC	Chisang Khola	8-Apr-18	15-Apr-18	6-May-18		21.60	M20
48	R-7	RUDP-261	Arghakhachi	OPC	Chisang Khola	8-Apr-18	15-Apr-18	6-May-18		21.37	M20
49	CN2CN3	RUDP-262	Arghakhachi	OPC	Chisang Khola	9-Apr-18	16-Apr-18	7-May-18		24.31	M20
50	DDC-yard	RUDP-263	Arghakhachi	OPC	Chisang Khola	9-Apr-18	16-Apr-18	7-May-18		22.28	M20
51	N-5	RUDP-264	Arghakhachi	OPC	Chisang Khola	9-Apr-18	16-Apr-18	7-May-18		23.03	M20
52	Rani Site (Mahendra Chowk)	RUDP-265	Arghakhachi	OPC	Chisang Khola	9-Apr-18	16-Apr-18	7-May-18		23.18	M20
53	Rani Site	RUDP-266	Arghakhachi	OPC	Chisang Khola	23-Feb-18	2-Mar-18	23-Mar-18		21.30	M20
54	R-86	RUDP-267	Arghakhachi	OPC	Chisang Khola	9-Apr-18	16-Apr-18	7-May-18		21.52	M20
55	R-122	RUDP-268	Arghakhachi	OPC	Chisang Khola	10-Apr-18	17-Apr-18	8-May-18		23.93	M20
56	N-9	RUDP-269	Arghakhachi	OPC	Chisang Khola	10-Apr-18	17-Apr-18	8-May-18		21.83	M20
57	Rani-Site(Haditali Hatt)	RUDP-270	Arghakhachi	OPC	Chisang Khola	10-Apr-18	17-Apr-18	8-May-18		22.65	M20
58	CN2CN3	RUDP-271	Arghakhachi	OPC	Chisang Khola	10-Apr-18	17-Apr-18	8-May-18		21.83	M20
59	DDC-yard	RUDP-272	Arghakhachi	OPC	Chisang Khola	10-Apr-18	17-Apr-18	8-May-18		21.00	M20
60	R-36	RUDP-273	Arghakhachi	OPC	Chisang Khola	10-Apr-18	17-Apr-18	8-May-18		22.43	M20
61	N-5	RUDP-274	Arghakhachi	OPC	Chisang Khola	10-Apr-18	17-Apr-18	8-May-18		23.63	M20
62	Xenial Hotel	RUDP-275	Arghakhachi	OPC	Chisang Khola	10-Apr-18	17-Apr-18	8-May-18		23.33	M20
63	R-21	RUDP-276	Arghakhachi	OPC	Chisang Khola	11-Apr-18	18-Apr-18	9-May-18		21.83	M20
64	R-21	RUDP-277	Arghakhachi	OPC	Chisang Khola	11-Apr-18	18-Apr-18	9-May-18		23.78	M20
65	R-75	RUDP-278	Arghakhachi	OPC	Chisang Khola	11-Apr-18	18-Apr-18	9-May-18		23.26	M20
66	CN2CN3	RUDP-279	Arghakhachi	OPC	Chisang Khola	11-Apr-18	18-Apr-18	9-May-18		21.98	M20
67	DDC-yard	RUDP-280	Arghakhachi	OPC	Chisang Khola	11-Apr-18	18-Apr-18	9-May-18		22.65	M20

ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD

BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL

 Checked By Engineer	 Submitted By Contract Manager	 Verified By Qty Engineer/CSE	 Approved By Team Leader
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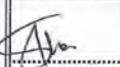
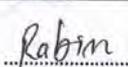


REGIONAL URBAN DEVELOPMENT PROJECT
Biratnagar Metropolitan City
Contract No:- RUDP/ICB/BRT-02
Summary Sheet of Concrete Cube Test Report

S.N.	Location	Lab Ref.no.	Type of Cement	Brand of Cement	Source of Sand+Agg.	Date of Casting	Month		May		Concrete Grade
							Year		2018		
							Type of Material		Conc. Cube		
							Date of Testing		Strength, N/mm ²		
7 Days	28 Days	7 Days	28 Days								
68	Rani Site (Mahendra chwok)	RUDP-281	Arghakhachi	OPC	Chisang Khola	11-Apr-18	18-Apr-18	9-May-18		23.10	M20
69	R-86	RUDP-282	Arghakhachi	OPC	Chisang Khola	12-Apr-18	19-Apr-18	10-May-18		21.15	M20
70	R-122	RUDP-283	Arghakhachi	OPC	Chisang Khola	12-Apr-18	19-Apr-18	10-May-18		22.05	M20
71	CN2CN3	RUDP-284	Arghakhachi	OPC	Chisang Khola	12-Apr-18	19-Apr-18	10-May-18		23.10	M20
72	CN2CN3	RUDP-285	Arghakhachi	OPC	Chisang Khola	12-Apr-18	19-Apr-18	10-May-18		22.73	M20
73	R-86	RUDP-286	Arghakhachi	OPC	Chisang Khola	13-Apr-18	20-Apr-18	11-May-18		23.18	M20
74	Rani Site	RUDP-287	Arghakhachi	OPC	Chisang Khola	13-Apr-18	20-Apr-18	11-May-18		23.86	M20
75	N-9	RUDP-288	Arghakhachi	OPC	Chisang Khola	13-Apr-18	20-Apr-18	11-May-18		20.77	M20
76	R-122	RUDP-289	Arghakhachi	OPC	Chisang Khola	13-Apr-18	20-Apr-18	11-May-18		21.98	M20
77	DDC-yard	RUDP-290	Arghakhachi	OPC	Chisang Khola	13-Apr-18	20-Apr-18	11-May-18		21.83	M20
78	DDC-yard	RUDP-291	Arghakhachi	OPC	Chisang Khola	23-Feb-18	2-Mar-18	23-Mar-18		21.75	M20
79	Rani Site (Hadtali Hatt)	RUDP-292	Arghakhachi	OPC	Chisang Khola	13-Apr-18	20-Apr-18	11-May-18		22.73	M20
80	Rani Site	RUDP-293	Arghakhachi	OPC	Chisang Khola	14-Apr-18	21-Apr-18	12-May-18		21.45	M20
81	N-9	RUDP-294	Arghakhachi	OPC	Chisang Khola	14-Apr-18	21-Apr-18	12-May-18		21.67	M20
82	R-86	RUDP-295	Arghakhachi	OPC	Chisang Khola	14-Apr-18	21-Apr-18	12-May-18		23.18	M20
83	Rani Site (Mahendra chwok)	RUDP-296	Arghakhachi	OPC	Chisang Khola	14-Apr-18	21-Apr-18	12-May-18		21.98	M20
84	Rani Site (Mahendra chwok)	RUDP-297	Arghakhachi	OPC	Chisang Khola	15-Apr-18	22-Apr-18	13-May-18		23.63	M20
85	CN2CN3	RUDP-298	Arghakhachi	OPC	Chisang Khola	15-Apr-18	22-Apr-18	13-May-18		22.43	M20
86	R-75	RUDP-299	Arghakhachi	OPC	Chisang Khola	15-Apr-18	22-Apr-18	13-May-18		23.48	M20
87	R-33	RUDP-300	Arghakhachi	OPC	Chisang Khola	15-Apr-18	22-Apr-18	13-May-18		20.92	M20
88	R-36	RUDP-301	Arghakhachi	OPC	Chisang Khola	16-Apr-18	23-Apr-18	14-May-18		22.80	M20
89	R-21	RUDP-302	Arghakhachi	OPC	Chisang Khola	17-Apr-18	24-Apr-18	15-May-18		22.20	M20
90	Rani Site (Hadtali Hatt)	RUDP-303	Arghakhachi	OPC	Chisang Khola	17-Apr-18	24-Apr-18	15-May-18		22.05	M20
91	R-75	RUDP-304	Arghakhachi	OPC	Chisang Khola	17-Apr-18	24-Apr-18	15-May-18		21.37	M20
92	DDC-yard	RUDP-305	Arghakhachi	OPC	Chisang Khola	18-Apr-18	25-Apr-18	16-May-18		22.43	M20
93	DDC-yard	RUDP-306	Arghakhachi	OPC	Chisang Khola	18-Apr-18	25-Apr-18	16-May-18		20.92	M20
94	CN2CN3	RUDP-307	Arghakhachi	OPC	Chisang Khola	19-Apr-18	26-Apr-18	17-May-18		22.35	M20
95	R-36	RUDP-308	Arghakhachi	OPC	Chisang Khola	19-Apr-18	26-Apr-18	17-May-18		21.00	M20
96	R-21	RUDP-309	Arghakhachi	OPC	Chisang Khola	20-Apr-18	27-Apr-18	18-May-18		23.48	M20
97	N-5	RUDP-310	Arghakhachi	OPC	Chisang Khola	20-Apr-18	27-Apr-18	18-May-18		22.28	M20

ZHONGHENG CONSTRUCTION GROUP
INTERNATIONAL ENGINEERING CO.
LTD

BUILDING DESIGN AUTHORITY (P) LTD IN JOINT
VENTURE WITH B.N. CONSULTANCY PVT. LTD AND
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KATHMANDU, NEPAL

			
Checked By Engineer	Submitted By Contract Manager	Verified By Qty Engineer/CSE	Approved By Team Leader



REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No:- RUDP/ICB/BRT-02

Summary Sheet of Concrete Cube Test Report

S.N.	Location	Lab Ref.no.	Type of Cement	Brand of Cement	Source of Sand+Agg.	Date of Casting	Month		May		Concrete Grade
							Year		2018		
							Type of Material		Conc. Cube		
							Date of Testing		Strength, N/mm ²		
		7 Days	28 Days	7 Days	28 Days						
98	R-33	RUDP-311	Arghakhachi	OPC	Chisang Khola	21-Apr-18	28-Apr-18	19-May-18		21.98	M20
99	R-36	RUDP-312	Arghakhachi	OPC	Chisang Khola	21-Apr-18	28-Apr-18	19-May-18		22.20	M20
100	N-5	RUDP-313	Arghakhachi	OPC	Chisang Khola	21-Apr-18	28-Apr-18	19-May-18		22.35	M20
101	R-86	RUDP-314	Arghakhachi	OPC	Chisang Khola	21-Apr-18	28-Apr-18	19-May-18		21.67	M20
102	Rani Site (Haditali Hatt)	RUDP-315	Arghakhachi	OPC	Chisang Khola	22-Apr-18	29-Apr-18	20-May-18		21.60	M20
103	CN2CN3	RUDP-316	Arghakhachi	OPC	Chisang Khola	22-Apr-18	29-Apr-18	20-May-18		21.30	M20
104	CN2CN3	RUDP-317	Arghakhachi	OPC	Chisang Khola	22-Apr-18	29-Apr-18	20-May-18		21.22	M20
105	Rani Site (Mahendra chwok)	RUDP-318	Arghakhachi	OPC	Chisang Khola	22-Apr-18	29-Apr-18	20-May-18		22.28	M20
106	R-2	RUDP-319	Arghakhachi	OPC	Chisang Khola	23-Apr-18	30-Apr-18	21-May-18		21.60	M20
107	R-33	RUDP-320	Arghakhachi	OPC	Chisang Khola	23-Apr-18	30-Apr-18	21-May-18		23.33	M20
108	Rani Site (Haditali Hatt)	RUDP-321	Arghakhachi	OPC	Chisang Khola	23-Apr-18	30-Apr-18	21-May-18		22.13	M20
109	R-122	RUDP-322	Arghakhachi	OPC	Chisang Khola	24-Apr-18	1-May-18	22-May-18	14.17	21.83	M20
110	R-2	RUDP-323	Arghakhachi	OPC	Chisang Khola	24-Apr-18	1-May-18	22-May-18	15.29	21.67	M20
111	RR-1	RUDP-324	Arghakhachi	OPC	Chisang Khola	24-Apr-18	1-May-18	22-May-18	15.59	22.28	M20
112	R-122	RUDP-325	Arghakhachi	OPC	Chisang Khola	26-Apr-18	3-May-18	24-May-18	15.81	21.75	M20
113	DDC-yard	RUDP-326	Arghakhachi	OPC	Chisang Khola	26-Apr-18	3-May-18	24-May-18	16.04	22.88	M20
114	R-33	RUDP-327	Arghakhachi	OPC	Chisang Khola	26-Apr-18	3-May-18	24-May-18	14.92	23.48	M20
115	R-2	RUDP-328	Arghakhachi	OPC	Chisang Khola	27-Apr-18	4-May-18	25-May-18	14.62	21.98	M20
116	R-36	RUDP-329	Arghakhachi	OPC	Chisang Khola	27-Apr-18	4-May-18	25-May-18	15.07	21.75	M20
117	N-3	RUDP-330	Arghakhachi	OPC	Chisang Khola	27-Apr-18	4-May-18	25-May-18	15.22	21.22	M20
118	N-3	RUDP-331	Arghakhachi	OPC	Chisang Khola	27-Apr-18	4-May-18	25-May-18	15.22	21.22	M20
119	R-21	RUDP-332	Arghakhachi	OPC	Chisang Khola	28-Apr-18	5-May-18	26-May-18	16.11	20.55	M20
120	Rani Site	RUDP-333	Arghakhachi	OPC	Chisang Khola	28-Apr-18	5-May-18	26-May-18	14.69	22.20	M20
121	CN2CN3	RUDP-334	Arghakhachi	OPC	Chisang Khola	28-Apr-18	5-May-18	26-May-18	14.77	21.30	M20
122	Xenial Hotel	RUDP-335	Arghakhachi	OPC	Chisang Khola	28-Apr-18	5-May-18	26-May-18	15.44	21.52	M20
123	R-111	RUDP-336	Arghakhachi	OPC	Chisang Khola	28-Apr-18	5-May-18	26-May-18	14.55	21.67	M20
124	CN2CN3	RUDP-337	Arghakhachi	OPC	Chisang Khola	1-May-18	8-May-18	29-May-18	14.69	21.90	M20
125	R-122	RUDP-338	Arghakhachi	OPC	Chisang Khola	1-May-18	8-May-18	29-May-18	14.40	20.20	M20
126	CN2CN3	RUDP-339	Arghakhachi	OPC	Chisang Khola	1-May-18	8-May-18	29-May-18	15.29	22.18	M20
127	Xenial Hotel	RUDP-340	Arghakhachi	OPC	Chisang Khola	1-May-18	8-May-18	29-May-18	14.17	22.43	M20
128	R-21	RUDP-341	Arghakhachi	OPC	Chisang Khola	1-May-18	8-May-18	29-May-18	13.87	22.35	M20
129	Rani Site	RUDP-342	Arghakhachi	OPC	Chisang Khola	1-May-18	8-May-18	29-May-18	13.80	21.37	M20
130	CN2CN3	RUDP-343	Arghakhachi	OPC	Chisang Khola	2-May-18	9-May-18	30-May-18	14.77	23.26	M20

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KATHMANDU, NEPAL

Checked By
Engineer

Submitted By
Contract Manager

Verified By
Qty Engineer/CSE

Approved By
Team Leader



REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No:- RUDP/ICB/BRT-02

Summary Sheet of Concrete Cube Test Report

S.N.	Location	Lab Ref.no.	Type of Cement	Brand of Cement	Source of Sand+Agg.	Date of Casting	Month		Year		May 2018		Concrete Grade
							Type of Material		Conc. Cube		Strength, N/mm ²		
							Date of Testing		7 Days	28 Days	7 Days	28 Days	
							7 Days	28 Days	7 Days	28 Days			
131	CN2CN3	RUDP-344	Arghakhachi	OPC	Chisang Khola	2-May-18	9-May-18	30-May-18	15.44	23.33		M20	
132	B3-2	RUDP-345	Arghakhachi	OPC	Chisang Khola	2-May-18	9-May-18	30-May-18	15.22	23.86		M20	
133	B3-3	RUDP-346	Arghakhachi	OPC	Chisang Khola	2-May-18	9-May-18	30-May-18	15.55	21.75		M20	
134	RR-1	RUDP-347	Arghakhachi	OPC	Chisang Khola	2-May-18	9-May-18	30-May-18	15.29	22.28		M20	
135	DDC-yard	RUDP-348	Arghakhachi	OPC	Chisang Khola	2-May-18	9-May-18	30-May-18	15.66	23.56		M20	
136	N-3	RUDP-349	Arghakhachi	OPC	Chisang Khola	2-May-18	9-May-18	30-May-18	14.10	23.18		M20	
137	R-111	RUDP-350	Arghakhachi	OPC	Chisang Khola	3-May-18	10-May-18	31-May-18	14.92	21.98		M20	
138	B3-2	RUDP-351	Arghakhachi	OPC	Chisang Khola	3-May-18	10-May-18	31-May-18	14.02	23.41		M20	
139	R-36	RUDP-352	Arghakhachi	OPC	Chisang Khola	3-May-18	10-May-18	31-May-18	13.95	21.00		M20	
140	R-122	RUDP-353	Arghakhachi	OPC	Chisang Khola	3-May-18	10-May-18	31-May-18	14.47	21.75		M20	
141	Xeniai Hotel	RUDP-354	Arghakhachi	OPC	Chisang Khola	3-May-18	10-May-18	31-May-18	14.77	21.83		M20	
142	CN2CN3	RUDP-355	Arghakhachi	OPC	Chisang Khola	3-May-18	10-May-18	31-May-18	15.29	21.52		M20	
143	CN2CN3	RUDP-356	Arghakhachi	OPC	Chisang Khola	3-May-18	10-May-18	31-May-18	16.19	23.56		M20	
144	CN2CN3	RUDP-357	Arghakhachi	OPC	Chisang Khola	3-May-18	10-May-18	31-May-18	15.44	23.48		M20	
145	R-33	RUDP-358	Arghakhachi	OPC	Chisang Khola	3-May-18	10-May-18	31-May-18	15.37	23.71		M20	
146	R-2	RUDP-359	Arghakhachi	OPC	Chisang Khola	3-May-18	10-May-18	31-May-18	14.10	20.92		M20	
147	B3-2	RUDP-360	Arghakhachi	OPC	Chisang Khola	3-May-18	10-May-18	31-May-18	14.55	22.43		M20	
148	Koshi yard	RUDP-361	Arghakhachi	OPC	Chisang Khola	4-May-18	11-May-18	1-Jun-18	15.66			M20	
149	DDC-yard	RUDP-362	Arghakhachi	OPC	Chisang Khola	4-May-18	11-May-18	1-Jun-18	14.55			M20	
150	R-122	RUDP-363	Arghakhachi	OPC	Chisang Khola	4-May-18	11-May-18	1-Jun-18	14.47			M20	
151	DSP Road	RUDP-364	Arghakhachi	OPC	Chisang Khola	4-May-18	11-May-18	1-Jun-18	15.07			M20	
152	T3 L21	RUDP-365	Arghakhachi	OPC	Chisang Khola	4-May-18	11-May-18	1-Jun-18	14.55			M20	
153	B3-2	RUDP-366	Arghakhachi	OPC	Chisang Khola	4-May-18	11-May-18	1-Jun-18	14.55			M20	
154	RR-1	RUDP-367	Arghakhachi	OPC	Chisang Khola	4-May-18	11-May-18	1-Jun-18	15.14			M20	
155	DDC-yard	RUDP-368	Arghakhachi	OPC	Chisang Khola	4-May-18	11-May-18	1-Jun-18	22.43			M30	
156	Madhumara-Yard	RUDP-369	Arghakhachi	OPC	Chisang Khola	4-May-18	11-May-18	1-Jun-18	21.3			M30	
157	R-5 (South of Traffic Chowk)	RUDP-370	Arghakhachi	OPC	Chisang Khola	5-May-18	12-May-18	2-Jun-18	15.22			M20	
158	CN2CN3	RUDP-371	Arghakhachi	OPC	Chisang Khola	5-May-18	12-May-18	2-Jun-18	15.44			M20	
159	CN2CN3	RUDP-372	Arghakhachi	OPC	Chisang Khola	5-May-18	12-May-18	2-Jun-18	14.99			M20	
160	Rani-Site	RUDP-373	Arghakhachi	OPC	Chisang Khola	5-May-18	12-May-18	2-Jun-18	13.95			M20	
161	R-2	RUDP-374	Arghakhachi	OPC	Chisang Khola	5-May-18	12-May-18	2-Jun-18	14.02			M20	
162	Xeniai Hotel	RUDP-375	Arghakhachi	OPC	Chisang Khola	5-May-18	12-May-18	2-Jun-18	14.55			M20	
163	Koshi yard	RUDP-376	Arghakhachi	OPC	Chisang Khola	5-May-18	12-May-18	2-Jun-18	14.54			M20	

**ZHONGHENG CONSTRUCTION GROUP
INTERNATIONAL ENGINEERING CO. LTD**



Checked By
Engineer

Submitted By
Contract Manager

**BUILDING DESIGN AUTHORITY (P) LTD IN JOINT
VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS
ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU,
NEPAL**

Verified By
Qty Engineer/CSE

Approved By
Team Leader



REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No:- RUDP/ICB/BRT-02

Summary Sheet of Concrete Cube Test Report

S.N.	Location	Lab Ref.no.	Type of Cement	Brand of Cement	Source of Sand+Agg.	Date of Casting	Month		May		Concrete Grade												
							Year		2018														
							Type of Material		Conc. Cube														
							Date of Testing		Strength, N/mm ²														
		7 Days	28 Days	7 Days	28 Days																		
164	CN2CN3	RUDP-377	Arghakhachi	OPC	Chisang Khola	5-May-18	12-May-18	2-Jun-18	15.74		M20												
165	R-2	RUDP-378	Arghakhachi	OPC	Chisang Khola	6-May-18	13-May-18	3-Jun-18	15.66		M20												
166	R-21	RUDP-379	Arghakhachi	OPC	Chisang Khola	6-May-18	13-May-18	3-Jun-18	15.74		M20												
167	T3 L21	RUDP-380	Arghakhachi	OPC	Chisang Khola	6-May-18	13-May-18	3-Jun-18	14.99		M20												
168	R-2	RUDP-381	Arghakhachi	OPC	Chisang Khola	6-May-18	13-May-18	3-Jun-18	14.4		M20												
169	R-36	RUDP-382	Salimar	OPC	Chisang Khola	6-May-18	13-May-18	3-Jun-18	15.22		M20												
170	R-11	RUDP-383	Salimar	OPC	Chisang Khola	6-May-18	13-May-18	3-Jun-18	14.32		M20												
171	RR-1	RUDP-384	Salimar	OPC	Chisang Khola	6-May-18	13-May-18	3-Jun-18	15.81		M20												
172	B2-2	RUDP-385	Salimar	OPC	Chisang Khola	6-May-18	13-May-18	3-Jun-18	15.22		M20												
173	DSP-Road	RUDP-386	Salimar	OPC	Chisang Khola	7-May-18	14-May-18	4-Jun-18	14.84		M20												
174	T3 L39	RUDP-387	Salimar	OPC	Chisang Khola	7-May-18	14-May-18	4-Jun-18	15.14		M20												
175	R-5 (South of Traffic Chowk)	RUDP-388	Salimar	OPC	Chisang Khola	7-May-18	14-May-18	4-Jun-18	14.55		M20												
176	RR-1	RUDP-389	Salimar	OPC	Chisang Khola	7-May-18	14-May-18	4-Jun-18	14.77		M20												
177	B2-2	RUDP-390	Salimar	OPC	Chisang Khola	7-May-18	14-May-18	4-Jun-18	14.99		M20												
178	CN2CN3	RUDP-391	Salimar	OPC	Chisang Khola	9-May-18	16-May-18	6-Jun-18	15.07		M20												
179	R-122	RUDP-392	Salimar	OPC	Chisang Khola	9-May-18	16-May-18	6-Jun-18	15.14		M20												
180	CN2CN3	RUDP-393	Salimar	OPC	Chisang Khola	9-May-18	16-May-18	6-Jun-18	14.17		M20												
181	Madhumara-Yard	RUDP-394	Salimar	OPC	Chisang Khola	9-May-18	16-May-18	6-Jun-18	21.30		M30												
182	DDC-yard	RUDP-395	Salimar	OPC	Chisang Khola	10-May-18	17-May-18	7-Jun-18	14.69		M20												
183	DDC-yard	RUDP-396	Salimar	OPC	Chisang Khola	10-May-18	17-May-18	7-Jun-18	14.77		M20												
184	T3 L39	RUDP-397	Salimar	OPC	Chisang Khola	10-May-18	17-May-18	7-Jun-18	14.32		M20												
185	CN2CN3	RUDP-398	Salimar	OPC	Chisang Khola	11-May-18	18-May-18	8-Jun-18	14.55		M20												
186	T3 L21	RUDP-399	Salimar	OPC	Chisang Khola	11-May-18	18-May-18	8-Jun-18	15.14		M20												
187	R-33	RUDP-400	Salimar	OPC	Chisang Khola	12-May-18	19-May-18	9-Jun-18	14.62		M20												
ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD						BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL																	
 Checked By Engineer						 Submitted By Contract Manager						 Verified By Qty Engineer/CSE						 Approved By Team Leader					



REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No:- RUDP/ICB/BRT-02

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							Year		2018		
							Type of Material		Conc. Cube		
							Date of Testing		Strength, N/mm ²		
							7 Days	28 Days	7 Days	28 Days	
188	R-21	RUDP-401	Salimar	OPC	Chisang Khola	12-May-18	19-May-18	9-Jun-18	14.10		M20
189	R-111	RUDP-402	Salimar	OPC	Chisang Khola	12-May-18	19-May-18	9-Jun-18	15.29		M20
190	Soth of Xenial Hotel	RUDP-403	Salimar	OPC	Chisang Khola	12-May-18	19-May-18	9-Jun-18	14.92		M20
191	RR-1	RUDP-404	Salimar	OPC	Chisang Khola	12-May-18	19-May-18	9-Jun-18	15.44		M20
192	B2-2	RUDP-405	Salimar	OPC	Chisang Khola	12-May-18	19-May-18	9-Jun-18	15.37		M20
193	R-5(South of Traffic Chowk)	RUDP-406	Salimar	OPC	Chisang Khola	12-May-18	19-May-18	9-Jun-18	14.69		M20
194	DSP Road	RUDP-407	Salimar	OPC	Chisang Khola	16-May-18	23-May-18	13-Jun-18	15.37		M20
195	R-33	RUDP-408	Salimar	OPC	Chisang Khola	16-May-18	23-May-18	13-Jun-18	15.20		M20
196	R-21	RUDP-409	Salimar	OPC	Chisang Khola	16-May-18	23-May-18	13-Jun-18	14.77		M20
197	R-2	RUDP-410	Salimar	OPC	Chisang Khola	16-May-18	23-May-18	13-Jun-18	15.29		M20
198	B2-2	RUDP-411	Salimar	OPC	Chisang Khola	16-May-18	23-May-18	13-Jun-18	14.62		M20
199	RR-1	RUDP-412	Salimar	OPC	Chisang Khola	16-May-18	23-May-18	13-Jun-18	15.74		M20
200	DDC-Yard	RUDP-413	Salimar	OPC	Chisang Khola	17-May-18	24-May-18	14-Jun-18	15.22		M20
201	DDC-Yard	RUDP-414	Salimar	OPC	Chisang Khola	17-May-18	24-May-18	14-Jun-18	14.47		M20
202	Madumara-Yard	RUDP-415	Salimar	OPC	Chisang Khola	17-May-18	24-May-18	14-Jun-18	21.11		M30
203	T3 L39	RUDP-416	Salimar	OPC	Chisang Khola	17-May-18	24-May-18	14-Jun-18	15.44		M20
204	CN2CN3	RUDP-417	Salimar	OPC	Chisang Khola	17-May-18	24-May-18	14-Jun-18	14.55		M20
205	RR-2	RUDP-418	Salimar	OPC	Chisang Khola	17-May-18	24-May-18	14-Jun-18	14.62		M20
206	R-5(South of	RUDP-419	Salimar	OPC	Chisang Khola	17-May-18	24-May-18	14-Jun-18	15.29		M20
207	R-2	RUDP-420	Salimar	OPC	Chisang Khola	17-May-18	24-May-18	14-Jun-18	14.77		M20
208	R-111	RUDP-421	Salimar	OPC	Chisang Khola	18-Apr-18	25-Apr-18	16-May-18	15.07		M20
209	DSP Road	RUDP-422	Salimar	OPC	Chisang Khola	18-Apr-18	25-Apr-18	16-May-18	16.34		M20
210	R-6	RUDP-423	Salimar	OPC	Chisang Khola	18-Apr-18	25-Apr-18	16-May-18	15.22		M20
211	CN2CN3	RUDP-424	Salimar	OPC	Chisang Khola	19-May-18	26-May-18	16-Jun-18	15.44		M20

ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD

BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL

[Signature]
Checked By
Engineer

[Signature]
Submitted By
Contract Manager

[Signature]
Verified By
Qty Engineer/CSE

[Signature]
Approved By
Team Leader



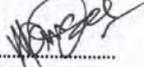
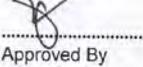
REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City
Contract No:- RUDP/ICB/BRT-02

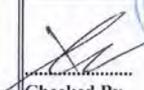
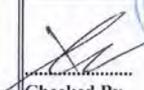
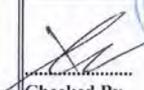
Summary Sheet of Field Density Test

Location:-RR-1

S.N.	Lab.Ref.no	Testing Date	Chainage	Moisture content %		Density (gm/cc)		Compaction %	
				OMC%	Field MC%	Max.Dry density	Field Dry density,	Compaction %	Specified %
								Base	
1	RUDP-B-FD-1, R/S	21-May-18	0+400	5.75	5.29	2.240	2.208	98.56	98
2	RUDP-B-FD-1, C/L	21-May-18	0+450	5.60	5.41	2.243	2.240	99.85	98
3	RUDP-B-FD-1, L/S	21-May-18	0+470	5.60	4.14	2.243	2.229	99.36	98
4	RUDP-B-FD-1, L/S	21-May-18	0+490	5.60	5.37	2.243	2.216	98.79	98
5	RUDP-B-FD-1, C/L	21-May-18	0+540	5.60	5.52	2.243	2.207	98.38	98
6	RUDP-B-FD-1, R/S	21-May-18	0+580	5.60	5.60	2.243	2.213	98.66	98
7	RUDP-B-FD-1, L/S	21-May-18	0+650	5.00	5.79	2.245	2.205	98.20	98
8	RUDP-B-FD-1, C/L	21-May-18	0+720	5.00	5.92	2.245	2.243	99.91	98
9	RUDP-B-FD-1, L/S	21-May-18	0+830	6.00	5.67	2.249	2.232	99.24	98
10	RUDP-SB-FD-1, R/S	21-May-18	0+880	6.00	5.03	2.249	2.210	98.26	98
11	RUDP-B-FD-1, C/L	21-May-18	0+920	6.00	4.92	2.249	2.238	99.63	98
12	RUDP-B-FD-1, L/S	21-May-18	0+970	6.00	6.26	2.249	2.225	98.93	98
13	RUDP-B-FD-1, L/S	21-May-18	1+020	5.10	5.86	2.247	2.204	98.07	98
14	RUDP-B-FD-1, C/L	21-May-18	1+060	5.10	4.96	2.247	2.240	99.69	98
15	RUDP-B-FD-1, R/S	21-May-18	1+100	5.10	5.72	2.247	2.239	99.64	98
16	RUDP-B-FD-1, C/L	21-May-18	1+150	5.10	4.59	2.247	2.243	99.82	98
17	RUDP-B-FD-1, L/S	21-May-18	1+180	5.30	5.35	2.244	2.204	98.24	98

Contractor	Consultant
ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD 	BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL
 Checked By Engineer	 Submitted By Contract Manager
 Verified By Qty Engineer/CSE	 Approved By Team Leader



REGIONAL URBAN DEVELOPMENT PROJECT																	
Biratnagar Metropolitan City																	
Contract No:- RUDP/ICB/BRT-02																	
Summary Sheet of Field Density Test																	
Location:-R-25																	
Sn.	Lab.Ref.no	Testing Date	Chainage	Moisture content %		Density(gm/cc)		Compaction %									
				OMC%	Field MC%	Max.Dry density	Field Dry density,	Compaction %	Specified %								
1	RUDP-B-FD-1, L/S	5-May-18	0+050	5.60	5.46	2.248	2.237	99.50	98								
2	RUDP-B-FD-1, R/S	5-May-18	0+125	5.60	5.18	2.248	2.229	99.17	98								
3	RUDP-B-FD-1, L/S	5-May-18	0+200	5.60	5.58	2.248	2.226	99.04	98								
4	RUDP-B-FD-1, R/S	5-May-18	0+275	5.60	4.14	2.248	2.224	98.95	98								
5	RUDP-B-FD-1, L/S	5-May-18	0+350	5.60	4.67	2.248	2.218	98.65	98								
6	RUDP-B-FD-1, R/S	5-May-18	0+425	5.90	5.14	2.242	2.229	99.34	98								
7	RUDP-B-FD-1, L/S	5-May-18	0+500	5.90	5.83	2.242	2.205	98.33	98								
8	RUDP-B-FD-1, R/S	5-May-18	0+575	5.90	4.72	2.242	2.233	99.59	98								
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%; text-align: center;">Contractor</td> <td style="width:50%; text-align: center;">Consultant</td> </tr> <tr> <td style="text-align: center;">ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD</td> <td style="text-align: center;">BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL</td> </tr> <tr> <td style="text-align: center;">  Checked By Engineer </td> <td style="text-align: center;">  Submitted By Contract Manager </td> </tr> <tr> <td style="text-align: center;">  Verified By Qty Enginner/CSE </td> <td style="text-align: center;">  Approved By Team Leader </td> </tr> </table>										Contractor	Consultant	ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD	BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL	 Checked By Engineer	 Submitted By Contract Manager	 Verified By Qty Enginner/CSE	 Approved By Team Leader
Contractor	Consultant																
ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD	BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL																
 Checked By Engineer	 Submitted By Contract Manager																
 Verified By Qty Enginner/CSE	 Approved By Team Leader																

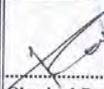


REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City
Contract No:- RUDP/ICB/BRT-02

Summary Sheet of Field Density Test

Sn.	Lab.Ref.no	Testing Date	Chainage	Moisture content %		Density(gm/cc)		Compaction %	
				OMC%	Field MC%	Max.Dry density	Field Dry density,	Compaction %	Specified %
				Location:-B3-2		Month	April/May		
		Year	2018						
		Type of Material	Base						
Re-Test									
1	RUDP-B-FD-1, L/S	22-Apr-18	0+040	5.60	4.76	2.246	2.141	95.32	98.0
2	RUDP-B-FD-1, R/S	22-Apr-18	0+080	5.60	4.63	2.246	2.095	93.26	98.0
3	RUDP-B-FD-1, L/S	22-Apr-18	0+110	5.60	4.19	2.246	2.104	93.68	98.0
4	RUDP-B-FD-1, R/S	22-Apr-18	0+140	5.60	5.43	2.246	2.072	92.23	98.0
5	RUDP-B-FD-1, L/S	22-Apr-18	0+160	5.60	4.85	2.246	2.105	93.72	98.0
6	RUDP-B-FD-1, R/S	22-Apr-18	0+200	5.60	5.10	2.246	2.181	97.09	98.0
7	RUDP-B-FD-1, L/S	22-Apr-18	0+230	5.60	5.81	2.246	2.070	92.32	98.0
8	RUDP-B-FD-1, C/L	22-Apr-18	0+270	5.60	4.19	2.246	2.091	93.09	98.0
9	RUDP-B-FD-1, L/S	22-Apr-18	0+330	5.00	4.77	2.242	2.178	97.12	98.0
10	RUDP-B-FD-1, R/S	22-Apr-18	0+370	5.00	5.81	2.242	2.144	95.62	98.0
11	RUDP-B-FD-1, L/S	22-Apr-18	0+390	5.00	5.97	2.242	2.110	94.11	98.0
12	RUDP-B-FD-1, R/S	22-Apr-18	0+410	5.00	5.03	2.242	2.105	93.88	98.0
Re-Tested									
1	RUDP-B-FD-2, L/S	2-May-18	0+050	5.60	5.31	2.246	2.216	98.66	98.0
2	RUDP-B-FD-2, R/S	2-May-18	0+090	5.60	5.84	2.246	2.220	98.86	98.0
3	RUDP-B-FD-2 L/S	2-May-18	0+130	5.60	5.47	2.246	2.231	99.31	98.0
4	RUDP-B-FD-2 R/S	2-May-18	0+160	5.60	5.39	2.246	2.224	99.01	98.0
5	RUDP-B-FD-2 L/S	2-May-18	0+190	5.60	5.64	2.246	2.240	99.73	98.0
6	RUDP-B-FD-2 R/S	2-May-18	0+220	5.60	5.68	2.246	2.218	98.74	98.0
7	RUDP-B-FD-2 L/S	2-May-18	0+260	5.60	5.30	2.246	2.220	98.89	98.0
8	RUDP-B-FD-2 C/L	2-May-18	0+300	5.00	5.10	2.242	2.221	99.06	98.0
9	RUDP-B-FD-2 R/S	2-May-18	0+340	5.00	5.00	2.242	2.223	99.14	98.0
10	RUDP-B-FD-2 R/S	2-May-18	0+360	5.00	5.84	2.242	2.220	99.03	98.0
11	RUDP-B-FD-2 C/L	2-May-18	0+380	5.00	5.12	2.242	2.238	99.82	98.0
12	RUDP-B-FD-2 L/S	2-May-18	0+410	5.00	5.22	2.242	2.227	99.35	98.0

Contractor ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD	Consultant BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL
 Checked By Engineer	 Submitted By Contract Manager
 Verified By Qty Engineer/CSE	 Approved By Team Leader



REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City
Contract No:- RUDP/ICB/BRT-02

Summary Sheet of Field Density Test

Location:-B3-1

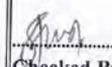
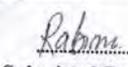
Sn.	Lab.Ref.no	Testing Date	Chainage	Moisture content %		Density(gm/cc)		Compaction %	
				OMC%	Field MC%	Max.Dry density	Field Dry density,	%	Specified %
1	RUDP-B-FD-1, R/S	10-May-18	0+480	6.80	5.19	2.241	2.213	98.74	98
2	RUDP-B-FD-1, C/L	10-May-18	0+400	5.80	5.69	2.241	2.204	98.37	98
3	RUDP-B-FD-1, L/S	10-May-18	0+380	5.80	5.42	2.241	2.216	98.89	98
4	RUDP-B-FD-1, L/S	11-May-18	0+360	6.00	5.05	2.249	2.241	99.66	98
5	RUDP-B-FD-1, R/S	11-May-18	0+310	6.00	5.04	2.249	2.207	98.12	98
6	RUDP-B-FD-1, C/L	11-May-18	0+270	6.00	5.36	2.249	2.219	98.65	98
7	RUDP-B-FD-1, R/S	11-May-18	0+230	6.00	5.14	2.249	2.214	98.45	98
8	RUDP-B-FD-1, L/S	11-May-18	0+200	6.00	5.48	2.249	2.215	98.51	98
9	RUDP-B-FD-1, C/L	11-May-18	0+180	6.00	5.41	2.249	2.242	99.67	98
10	RUDP-B-FD-1, L/S	11-May-18	0+130	6.00	5.96	2.249	2.220	98.80	98
11	RUDP-B-FD-1, C/L	11-May-18	0+080	6.00	6.01	2.249	2.230	99.16	98
12	RUDP-B-FD-1, R/S	11-May-18	0+050	6.00	5.10	2.249	2.232	99.26	98
Contractor				Consultant					
ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD				BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL					
 Checked By Engineer		 Submitted By Contract Manager		 Verified By Qty Engineer/CSE		 Approved By Team Leader			



REGIONAL URBAN DEVELOPMENT PROJECT									
Biratanagar Metropolitan City									
Contract No:- RUDP/ICB/BRT-02									
Summary Sheet of Field Density Test									
Location:-B1									
				Moisture content %		Density(gm/cc)		Compaction %	
Sn.	Lab.Ref.no	Testing Date	Chainage	OMC%	Field MC%	Max.Dry density	Field Dry density,	Compaction %	Specified %
Re-Test									
1	RUDP-B-FD-1, L/S	12-Mar-18	0+080	6.00	5.98	2.242	2.179	97.18	98
2	RUDP-B-FD-1, C/L	12-Mar-18	0+190	6.00	6.65	2.242	2.167	96.65	98
3	RUDP-B-FD-1, L/S	12-Mar-18	0+310	6.00	5.80	2.242	2.183	97.35	98
4	RUDP-B-FD-1, L/S	12-Mar-18	0+420	6.25	7.05	2.247	2.149	95.64	98
5	RUDP-B-FD-1, C/L	12-Mar-18	0+500	6.25	6.73	2.247	2.156	95.93	98
6	RUDP-B-FD-1, R/S	12-Mar-18	0+620	6.35	6.00	2.245	2.178	97.01	98
7	RUDP-B-FD-1, L/S	12-Mar-18	0+710	6.35	6.83	2.245	2.168	96.57	98
8	RUDP-B-FD-1, C/L	12-Mar-18	0+830	6.60	6.38	2.244	2.173	96.84	98
9	RUDP-B-FD-1, R/S	12-Mar-18	0+910	6.60	6.21	2.244	2.146	95.63	98
10	RUDP-B-FD-1, R/S	13-Mar-18	1+000	6.00	6.13	2.241	2.117	94.45	98
11	RUDP-B-FD-1, C/L	13-Mar-18	1+110	6.00	5.64	2.241	2.181	97.31	98
12	RUDP-B-FD-1, L/S	13-Mar-18	1+190	5.00	5.84	2.249	2.121	94.32	98
Re-Tested									
1	RUDP-B-FD-2, R/S	17-Mar-18	0+070	6.00	5.31	2.242	2.236	99.73	98
2	RUDP-B-FD-2, C/L	17-Mar-18	0+160	6.00	4.78	2.242	2.204	98.31	98
3	RUDP-B-FD-2, L/S	17-Mar-18	0+300	6.00	5.26	2.242	2.230	99.48	98
4	RUDP-B-FD-2, L/S	17-Mar-18	0+410	6.25	5.18	2.247	2.220	98.79	98
5	RUDP-B-FD-2, C/L	17-Mar-18	0+520	6.25	5.16	2.247	2.211	98.41	98
6	RUDP-B-FD-2, R/S	17-Mar-18	0+610	6.35	5.73	2.245	2.222	98.99	98
7	RUDP-B-FD-2, L/S	17-Mar-18	0+720	6.35	5.50	2.245	2.212	98.52	98
8	RUDP-B-FD-2, C/L	17-Mar-18	0+830	6.60	5.55	2.244	2.237	99.69	98
9	RUDP-B-FD-2, L/S	17-Mar-18	0+900	6.60	5.46	2.244	2.204	98.20	98
10	RUDP-B-FD-2, R/S	18-Mar-18	1+010	6.00	5.02	2.241	2.205	99.77	98
11	RUDP-B-FD-2, C/L	18-Mar-18	1+100	6.00	5.81	2.241	2.218	98.97	98
12	RUDP-B-FD-2, L/S	18-Mar-18	1+180	5.00	5.91	2.249	2.227	99.04	98
Contractor					Consultant				
ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD					BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL				
Checked By Engineer		Submitted By Contract Manager			Verified By Qty Enginner/CSE		Approved By Team Leader		



REGIONAL URBAN DEVELOPMENT PROJECT											
Biratnagar Metropolitan City											
Contract No:- RUDP/ICB/BRT-02											
Summary Sheet of Mortar Test Report											
S.N.	Location	Lab Ref.no	Type of Cement	Brand of Cement	Source of Sand	Date of Casting	Month		May		Moisture of Grade
							Year		2018		
							Description of Sample		Brick Wall		
							Date of Testing		Strength, N/mm ²		
		7 Days	28 Days	7 Days	28 Days						
1	R-21	MR-158	Arghakhachi	OPC	Chisang Khola	3-Apr-18	10-Apr-18	1-May-18		7.60	7.5
2	Rani Site(Hadtali Hatt)	MR-159	Arghakhachi	OPC	Chisang Khola	3-Apr-18	10-Apr-18	1-May-18		8.80	7.5
3	Rani Site(Hadtali Hatt)	MR-160	Arghakhachi	OPC	Chisang Khola	3-Apr-18	10-Apr-18	1-May-18		8.00	7.5
4	R-33	MR-161	Arghakhachi	OPC	Chisang Khola	3-Apr-18	10-Apr-18	1-May-18		8.67	7.5
5	Rani Site (Mahendra Chowk)	MR-162	Arghakhachi	OPC	Chisang Khola	4-Apr-18	11-Apr-18	2-May-18		8.27	7.5
6	Rani Site (Mahendra Chowk)	MR-163	Arghakhachi	OPC	Chisang Khola	4-Apr-18	11-Apr-18	2-May-18		8.80	7.5
7	Rani Site	MR-164	Arghakhachi	OPC	Chisang Khola	5-Apr-18	12-Apr-18	3-May-18		8.40	7.5
8	R-186	MR-165	Arghakhachi	OPC	Chisang Khola	5-Apr-18	12-Apr-18	3-May-18		7.87	7.5
9	N-5	MR-166	Arghakhachi	OPC	Chisang Khola	6-Apr-18	13-Apr-18	4-May-18		8.40	7.5
10	N-9	MR-167	Arghakhachi	OPC	Chisang Khola	6-Apr-18	13-Apr-18	4-May-18		8.54	7.5
11	R-21	MR-168	Arghakhachi	OPC	Chisang Khola	6-Apr-18	13-Apr-18	4-May-18		9.34	7.5
12	Rani Site(Hadtali Hatt)	MR-169	Arghakhachi	OPC	Chisang Khola	7-Apr-18	14-Apr-18	5-May-18		8.27	7.5
13	R-33	MR-170	Arghakhachi	OPC	Chisang Khola	7-Apr-18	14-Apr-18	5-May-18		8.14	7.5
14	Rani Site (Mahendra Chowk)	MR-171	Arghakhachi	OPC	Chisang Khola	7-Apr-18	14-Apr-18	5-May-18		8.27	7.5
15	R-75	MR-172	Arghakhachi	OPC	Chisang Khola	7-Apr-18	14-Apr-18	5-May-18		8.80	7.5
16	R-86	MR-173	Arghakhachi	OPC	Chisang Khola	9-Apr-18	16-Apr-18	7-May-18		9.20	7.5
17	R-75	MR-174	Arghakhachi	OPC	Chisang Khola	12-Apr-18	19-Apr-18	10-May-18		8.54	7.5
18	R-9	MR-175	Arghakhachi	OPC	Chisang Khola	13-Apr-18	20-Apr-18	11-May-18		8.14	7.5
19	R-86	MR-176	Arghakhachi	OPC	Chisang Khola	14-Apr-18	21-Apr-18	12-May-18		7.87	7.5
20	Rani Site (Mahendra Chowk)	MR-177	Arghakhachi	OPC	Chisang Khola	14-Apr-18	21-Apr-18	12-May-18		8.54	7.5
21	R-75	MR-178	Arghakhachi	OPC	Chisang Khola	15-Apr-18	22-Apr-18	13-May-18		9.60	7.5
22	Rani Site(Hadtali Hatt)	MR-179	Arghakhachi	OPC	Chisang Khola	15-Apr-18	22-Apr-18	13-May-18		9.34	7.5
23	R-86	MR-180	Arghakhachi	OPC	Chisang Khola	16-Apr-18	23-Apr-18	14-May-18		8.27	7.5
24	R-36	MR-181	Arghakhachi	OPC	Chisang Khola	16-Apr-18	23-Apr-18	14-May-18		8.94	7.5
25	R-9	MR-182	Arghakhachi	OPC	Chisang Khola	17-Apr-18	24-Apr-18	15-May-18		8.27	7.5
26	R-75	MR-183	Arghakhachi	OPC	Chisang Khola	18-Apr-18	25-Apr-18	16-May-18		8.80	7.5
27	R-75	MR-184	Arghakhachi	OPC	Chisang Khola	18-Apr-18	25-Apr-18	16-May-18		8.94	7.5
28	R-86	MR-185	Arghakhachi	OPC	Chisang Khola	19-Apr-18	26-Apr-18	17-May-18		8.40	7.5
29	N-9	MR-186	Arghakhachi	OPC	Chisang Khola	19-Apr-18	26-Apr-18	17-May-18		8.94	7.5
30	R-2	MR-187	Arghakhachi	OPC	Chisang Khola	19-Apr-18	26-Apr-18	17-May-18		8.67	7.5
31	R-86	MR-188	Arghakhachi	OPC	Chisang Khola	20-Apr-18	27-Apr-18	18-May-18		8.80	7.5
32	R-86	MR-189	Arghakhachi	OPC	Chisang Khola	21-Apr-18	28-Apr-18	19-May-18		8.00	7.5
33	R-75	MR-190	Arghakhachi	OPC	Chisang Khola	21-Apr-18	28-Apr-18	19-May-18		9.34	7.5

Contractor		Consultant	
 ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD		BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL	
 Checked By Engineer	 Submitted By Contract Manager	 Verified By Qty Engineer/CSE	 Approved By Team Leader



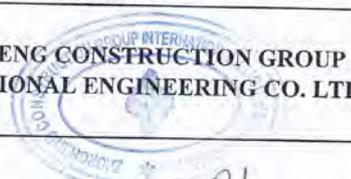
REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No:- RUDP/ICB/BRT-02

Summary Sheet of Mortar Test Report

S.N.	Location	Lab Ref.no.	Type of Cement	Brand of Cement	Source of Sand	Date of Casting	Month		May		Min. of Grade
							Year		2018		
							Description of Sample		Brick Wall		
							Date of Testing		Strength, N/mm ²		
						7 Days	28 Days	7 Days	28 Days		
34	Rani Site	MR-191	Arghakhachi	OPC	Chisang Khola	21-Apr-18	28-Apr-18	19-May-18		8.67	7.5
35	R-183	MR-192	Arghakhachi	OPC	Chisang Khola	21-Apr-18	28-Apr-18	19-May-18		8.94	7.5
36	R-183	MR-193	Arghakhachi	OPC	Chisang Khola	21-Apr-18	28-Apr-18	19-May-18		8.67	7.5
37	R-86	MR-194	Arghakhachi	OPC	Chisang Khola	22-Apr-18	29-Apr-18	20-May-18		8.67	7.5
38	R-21	MR-195	Arghakhachi	OPC	Chisang Khola	22-Apr-18	29-Apr-18	20-May-18		8.54	7.5
39	R-86	MR-196	Arghakhachi	OPC	Chisang Khola	23-Apr-18	30-Apr-18	21-May-18		8.27	7.5
40	R-33	MR-197	Arghakhachi	OPC	Chisang Khola	25-Apr-18	2-May-18	23-May-18	6.14	9.07	7.5
41	R-21	MR-198	Arghakhachi	OPC	Chisang Khola	25-Apr-18	2-May-18	23-May-18	5.87	8.40	7.5
42	R-36	MR-199	Arghakhachi	OPC	Chisang Khola	26-Apr-18	3-May-18	24-May-18	6.14	8.67	7.5
43	R-21	MR-200	Arghakhachi	OPC	Chisang Khola	26-Apr-18	3-May-18	24-May-18	6.14	7.87	7.5
44	N-3	MR-201	Arghakhachi	OPC	Chisang Khola	27-Apr-18	4-May-18	25-May-18	5.60	8.00	7.5
45	R-122	MR-202	Arghakhachi	OPC	Chisang Khola	27-Apr-18	4-May-18	25-May-18	6.00	9.20	7.5
46	Rani Site	MR-203	Arghakhachi	OPC	Chisang Khola	28-Apr-18	5-May-18	26-May-18	5.87	8.94	7.5
47	R-111	MR-204	Arghakhachi	OPC	Chisang Khola	28-Apr-18	5-May-18	26-May-18	5.87	8.14	7.5
48	Xenial Hotel	MR-205	Arghakhachi	OPC	Chisang Khola	29-Apr-18	6-May-18	27-May-18	5.87	7.47	7.5
49	R-33	MR-206	Arghakhachi	OPC	Chisang Khola	29-Apr-18	6-May-18	27-May-18	5.33	8.27	7.5
50	R-33	MR-207	Arghakhachi	OPC	Chisang Khola	30-Apr-18	7-May-18	28-May-18	6.27	8.00	7.5
51	R-2	MR-208	Arghakhachi	OPC	Chisang Khola	30-Apr-18	7-May-18	28-May-18	6.00	7.87	7.5
52	R-36	MR-209	Arghakhachi	OPC	Chisang Khola	1-May-18	8-May-18	29-May-18	6.14	8.14	7.5
53	R-21	MR-210	Arghakhachi	OPC	Chisang Khola	1-May-18	8-May-18	29-May-18	6.40	8.67	7.5
54	N-3	MR-211	Arghakhachi	OPC	Chisang Khola	2-May-18	9-May-18	30-May-18	6.00	8.00	7.5
55	R-122	MR-212	Arghakhachi	OPC	Chisang Khola	2-May-18	9-May-18	30-May-18	6.40	7.60	7.5
56	Rani Site	MR-213	Arghakhachi	OPC	Chisang Khola	3-May-18	10-May-18	31-May-18	6.00	8.67	7.5
57	R-111	MR-214	Arghakhachi	OPC	Chisang Khola	4-May-18	11-May-18	1-Jun-18	6.27		7.5
58	Xenial Hotel	MR-215	Arghakhachi	OPC	Chisang Khola	4-May-18	11-May-18	1-Jun-18	6.14		7.5
59	R-33	MR-216	Arghakhachi	OPC	Chisang Khola	5-May-18	12-May-18	2-Jun-18	5.87		7.5
60	R-2	MR-217	Arghakhachi	OPC	Chisang Khola	5-May-18	12-May-18	2-Jun-18	5.33		7.5
61	R-36	MR-218	Arghakhachi	OPC	Chisang Khola	7-May-18	14-May-18	4-Jun-18	5.47		7.5
62	N-3	MR-219	Arghakhachi	OPC	Chisang Khola	8-May-18	15-May-18	5-Jun-18	5.47		7.5
63	R-21	MR-220	Arghakhachi	OPC	Chisang Khola	8-May-18	15-May-18	5-Jun-18	6.14		7.5
64	R-122	MR-221	Arghakhachi	OPC	Chisang Khola	8-May-18	15-May-18	5-Jun-18	6.14		7.5
65	Rani Site	MR-222	Arghakhachi	OPC	Chisang Khola	10-May-18	17-May-18	7-Jun-18	6.40		7.5
66	R-111	MR-223	Arghakhachi	OPC	Chisang Khola	10-May-18	17-May-18	7-Jun-18	6.80		7.5

Contractor  ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD	Consultant BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL
Checked By Engineer	Submitted By Contract Manager
Verified By Qty Engineer/CSE	Approved By Team Leader



REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No:- RUDP/ICB/BRT-02

Summary Sheet of Mortar Test Report

S.N.	Location	Lab Ref.no.	Type of Cement	Brand of Cement	Source of Sand	Date of Casting	Month		May		Mortar of Grade
							Year		2018		
							Description of Sample		Brick Wall		
							Date of Testing		Strength, N/mm ²		
							7 Days	28 Days	7 Days	28 Days	
67	R-111	MR-224	Arghakhachi	OPC	Chisang Khola	11-May-18	18-May-18	8-Jun-18	5.60		7.5
68	Xenial Hotel	MR-225	Arghakhachi	OPC	Chisang Khola	11-May-18	18-May-18	8-Jun-18	5.74		7.5
69	R-111	MR-226	Arghakhachi	OPC	Chisang Khola	12-May-18	19-May-18	9-Jun-18	5.87		7.5
70	Xenial Hotel	MR-227	Arghakhachi	OPC	Chisang Khola	12-May-18	19-May-18	9-Jun-18	5.87		7.5
71	R-111	MR-228	Arghakhachi	OPC	Chisang Khola	13-May-18	20-May-18	10-Jun-18	5.74		7.5
72	R-33	MR-229	Arghakhachi	OPC	Chisang Khola	13-May-18	20-May-18	10-Jun-18	6.54		7.5
73	R-2	MR-230	Arghakhachi	OPC	Chisang Khola	13-May-18	20-May-18	10-Jun-18	5.74		7.5
74	R-21	MR-231	Arghakhachi	OPC	Chisang Khola	13-May-18	20-May-18	10-Jun-18	6.54		7.5
75	R-122	MR-232	Arghakhachi	OPC	Chisang Khola	13-May-18	20-May-18	10-Jun-18	6.40		7.5
76	R-2	MR-233	Arghakhachi	OPC	Chisang Khola	16-May-18	23-May-18	13-Jun-18	5.87		7.5
77	R-122	MR-234	Arghakhachi	OPC	Chisang Khola	16-May-18	23-May-18	13-Jun-18	5.87		7.5
78	R-33	MR-235	Arghakhachi	OPC	Chisang Khola	16-May-18	23-May-18	13-Jun-18	5.47		7.5
79	South of Xenial Hotel	MR-236	Arghakhachi	OPC	Chisang Khola	17-May-18	24-May-18	14-Jun-18	5.87		7.5
80	T3 L21	MR-237	Arghakhachi	OPC	Chisang Khola	17-May-18	24-May-18	14-Jun-18	5.87		7.5
81	R-2	MR-238	Salimar	OPC	Chisang Khola	17-May-18	24-May-18	14-Jun-18	6.67		7.5
82	R-122	MR-239	Salimar	OPC	Chisang Khola	18-May-18	25-May-18	15-Jun-18	5.60		7.5
83	R-21	MR-240	Salimar	OPC	Chisang Khola	18-May-18	25-May-18	15-Jun-18	6.00		7.5
84	South of Xenial Hotel	MR-241	Salimar	OPC	Chisang Khola	19-May-18	26-May-18	16-Jun-18	6.27		7.5
85	T3 L21	MR-242	Salimar	OPC	Chisang Khola	19-May-18	26-May-18	16-Jun-18	6.27		7.5
86	R-33	MR-243	Salimar	OPC	Chisang Khola	19-May-18	26-May-18	16-Jun-18	6.54		7.5
87	R-2	MR-244	Salimar	OPC	Chisang Khola	20-May-18	27-May-18	17-Jun-18	5.74		7.5
88	R-21	MR-245	Salimar	OPC	Chisang Khola	20-May-18	27-May-18	17-Jun-18	5.74		7.5
89	R-122	MR-246	Salimar	OPC	Chisang Khola	20-May-18	27-May-18	17-Jun-18	6.00		7.5
90	T3 L21	MR-247	Salimar	OPC	Chisang Khola	21-May-18	28-May-18	18-Jun-18	6.27		7.5
91	T3 L39	MR-248	Salimar	OPC	Chisang Khola	21-May-18	28-May-18	18-Jun-18	5.74		7.5
92	R-2	MR-249	Salimar	OPC	Chisang Khola	21-May-18	28-May-18	18-Jun-18	5.60		7.5
93	R-122	MR-250	Salimar	OPC	Chisang Khola	21-May-18	28-May-18	18-Jun-18	6.54		7.5
94	R-122	MR-251	Salimar	OPC	Chisang Khola	22-May-18	29-May-18	19-Jun-18	5.33		7.5
95	T3 L21	MR-252	Salimar	OPC	Chisang Khola	22-May-18	29-May-18	19-Jun-18	5.87		7.5
96	R-122	MR-253	Salimar	OPC	Chisang Khola	22-May-18	29-May-18	19-Jun-18	5.74		7.5
97	T3 L39	MR-254	Salimar	OPC	Chisang Khola	22-May-18	29-May-18	19-Jun-18	5.74		7.5
98	R-122	MR-255	Salimar	OPC	Chisang Khola	23-May-18	30-May-18	20-Jun-18	5.87		7.5
99	T3 L21	MR-256	Salimar	OPC	Chisang Khola	24-May-18	31-May-18	21-Jun-18	5.87		7.5

Contractor	Consultant
 ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD	BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL
_____ Checked By Engineer	_____ Submitted By Contract Manager
_____ Verified By Qty Engineer/CSE	_____ Approved By Team Leader





Government of Nepal
Ministry of Physical Infrastructure and Transport
DEPARTMENT OF ROADS
CENTRAL ROAD LABORATORY
CHAKRAPATI, LALITPUR
Chakrapati, Lalitpur

Phone No. 01-5260696
Ref.No.: 9852
Date: 2075.02.13

Subject: Bitumen Test Result.

To

Building Design Authority (P) Ltd.

In Joint Venture With , B.N Consultancy Pvt.Ltd and Plus Engineer And Architects
(P) Ltd.,Kathmandu

Regional Urban Development project (RUDP), ADB Loan No: 47252
Biratnagar Metropolitan City ,Biratnagar

With reference to your letter dated 15- May-2018, Ref.No: rudpbdbtr/tl 2018-102, we are enclosing herewith Bitumen test results of provided 1 sample of Bitumen.

Test Results

S.N.	Name of tests	Unit	Result	Remarks
			Sample No: 1	
1	Penetration at 25 ^o c	1/10mm	89	
2	Specific gravity		1.019	
3	Softening Point	^o c	43.3	
4	Water Content	%	0.10	
5	Ductility at 25 ^o C	cm	100.0	Unbreakable up to 100 cm.
6	Solubility in Trichloroethylene	%	99.6	
7	Loss on heating for 5 hours at 163 ^o C	%	0.377	
8	a. Flash Point	^o c	265.0	
	b. Fire Point	^o c	310.0	
9	Penetration of Residue after loss on heating	1/10mm	72	

Note: Samples are not taken by us. This test report only represents the tested samples.


Binod Prasad Sapkota
(Laboratory Incharge)
Laboratory Incharge



13 ANNEX-4: SOCIAL SAFEGUARD MONITORING
/ENVIRONMENTAL MONITORING FORMATS
Attached



**Regional Urban Development Project(RUDP)
Social Safeguard Monitoring**

Inventory of Social Facilities

1. General information

Subproject: -RUDP/ICB/BRT/2

Month/Year: *May 2018*

Group: International Engineering Co pvt Beijing
China.

Contract Package: RUDP/ICB/BRT/2

2. Total numbers of contractor workers involved in road construction (write down the number)

Type of Workers	Camp-1	Camp-2	Camp-3	Camp-4	Camp-5	Camp-6	Camp-7	Camp-8	Camp-9	Camp-10	Remarks
Local	Male										local workers
	Female										live at home
Non-Local	Male	6	18	35	22	28	17	19	13	24	18
	Female	-	-	-	-	-	-	-	-	-	-
Child Labour	Male	-	-	-	-	-	-	-	-	-	-
	Female	-	-	-	-	-	-	-	-	-	-

3. Source and adequacy of drinking water facility in the labour camp (use code)

Sources	Camp-1	Camp-2	Camp-3	Camp-4	Camp-5	Camp-6	Camp-7	Camp-8	Camp-9	Camp-10	Remarks
a. Piped water	2	2	2			2	2	2	2		
b. Well/Spring	2	2	2	2	2					2	
c. Tanker											
d.											
Code:											
Insufficient-1	Sufficient-2		Plenty-3								

4. Type and number of toilets in the labour camp (write down the number)

Type	Camp-1	Camp-2	Camp-3	Camp-4	Camp-5	Camp-6	Camp-7	Camp-8	Camp-9	Camp-10	Remarks
a. Pit Latrine					1				1		
b. Pan	4	2	2	1		1	1	1		1	
c. Open											
d.											

5. Energy used in labour camp (tick mark)

Sources of E	Camp-1	Camp-2	Camp-3	Camp-4	Camp-5	Camp-6	Camp-7	Camp-8	Camp-9	Camp-10	Remarks
a. Firewood											
b. Kerosene											
c. L.P Gas	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	



Prepared by:

verified by: *[Signature]*

Monitored by:-



**Regional Urban Development Project (RUDP)
Social Safeguard Monitoring
Status of Key Social Issues Compliance**

Subproject Road : -RUDP/ICB/BRT/2

Month/Year: *May 2018*

Name of Contractor :-ZHONGGHENG Construction
GroupInternational Engineering Co pvt Beijing China.

Contract Package: RUDP/ICB/BRT/2

S.N	Key Social Issue	Compliance Status			Implementing Agency	Note of Remarks	Deadline
		Full	Partial	None			
1	Availability of drinking water services	✓					
2	Availability of toilet facility in campsite	✓					
3	Legal source of fuel wood use			✓			
4	Legal document of fuel wood source			✓			
5	Use of safety accessories	✓					
6	Availability of first aid facility	✓					
7	Basic wage rate to construction workers	✓					
8	Equal wage rate to male and female workers		✓				
9	Compensation of temporarily occupied land	✓					
10	Compensation of temporarily occupied buildings	✓					
11	Legal document of temporarily occupied assets	✓					
12	Non use of child labour in construction activities	✓					



Prepared by:

Verified by:

[Signature]

Monitored by:



**Environmental Monitoring Format
Regional Urban Development Project (RUDP)/Biratnagar**

Name of Sub Project: RUDP/ Biratnagar

Contract Package: RUDP/ICB/BRT/02

Sub-project Component: Road Lanes Improvement/ Sewerage Drainage

Month: May 2018

Checklist

S.No	Activity	Description/Present Status (Compliance/Partially Compliance/Non Compliance)	Remarks/ Corrective actions for Non-Compliance	
1	Training			
1.1	Health, Safety and EMP trainings and awareness	Awareness training organised	Contractor organized 2day Awareness Training on March 3 and 4	
1.2	Others awareness and skill trainings	No		
2	Occupational health and safety			
2.1	Insurance for workers	Yes	Enforce contractor to fully use of PPE	
2.2	Personal Protective Equipment (PPE) provided to labours and are using (helmet, facemasks, muffles, gloves, boots, jacket, goggles etc.)	Yes (distributed to labour but partially used)		
2.3	Public notification Safety and warning signs and informative signboards in working sites for work safety	Partially complied		Enforced to fully complied
2.4	Use of barricades, caution tape and flag	Partially complied		Enforced to fully complied
3	Camp site management			
3.1	Location		Enforce to place first aid kit in working site	
3.2	First aid facilities available at camp and work sites	No		
3.3	Drinking water supply and sanitation facilities/ pit latrines	Yes (Water quality not tested)	Enforce to test water quality prior to use for drinking NDWQS 2062	
3.4	Waste Disposal and Management facilities	No (No waste management provision)	Provide separate Bins to collect waste	
3.5	Type of fuel used for cooking			
4	Spoil and Construction material Management			
4.1	Cut and fill balance maintained or not, Reuse of spoil materials	Reused in Backfilling		
4.2	Use of safe spoil disposal locations			
4.3	Disturbance to Pedestrian and traffic movement			
4.4	Use of private land and agreement with land owners	N/A		
5	Air, Noise and Water Pollution			
5.1	Dust emission and Noise pollution sites	Water has been sprinkled to minimize dust pollution but not enough	Instructed to increase the frequency of sprinkling water	
5.2	Water quality monitoring result and locations			
5.3				



	Blockage of natural drainages, water logging, drain water discharge into farm land/ risky areas	No water quality test No	Contractor instructed to test immediately
6	Quarrying of construction materials and Plants Installment		
6.1	Quarry/borrow operation sites	No	
6.2	Crusher plant and Asphalt plant operation restoration	Yes	Asphalt plant is in Operation in Rani
7	Impact/Disruption of Private properties		
7.1	Building structures	No	
7.2	Other utilities	No	
8	Impact/ disruption of public infrastructures		
8.1	Irrigation canal	No	
8.2	Water supply pipe	Disturbed and relocation of pipeline is going on	Contractor instructed to repair other remaining part immediately from provisional sum
8.3	Access road	No (Traffic diversion with sign board)	
8.4	Electric/Telephone pole	Poles within RoW	Relocation of poles also going on
8.5	Others		
9	Sites for cultural and religious values		
9.1	Cultural and religious sensitive spots (if any)	N/A	
10	Forest and vegetation		
10.1	Number of trees removal	N/A	
10.2	No of tree plantation (Roadside)	N/A	
11	Accident cases and records	No cases of accident	
12	Employment to local people		
12	Men and women	Men-416, Women -20	Record of labour maintained
1	Child labour (if any)	No	
12.2			
13	Establishment of Safeguard desk and meeting	Yes	Meetings were conducted regularly.
14	Grievances from local people and addressed	Yes	GRM recorded and addressed

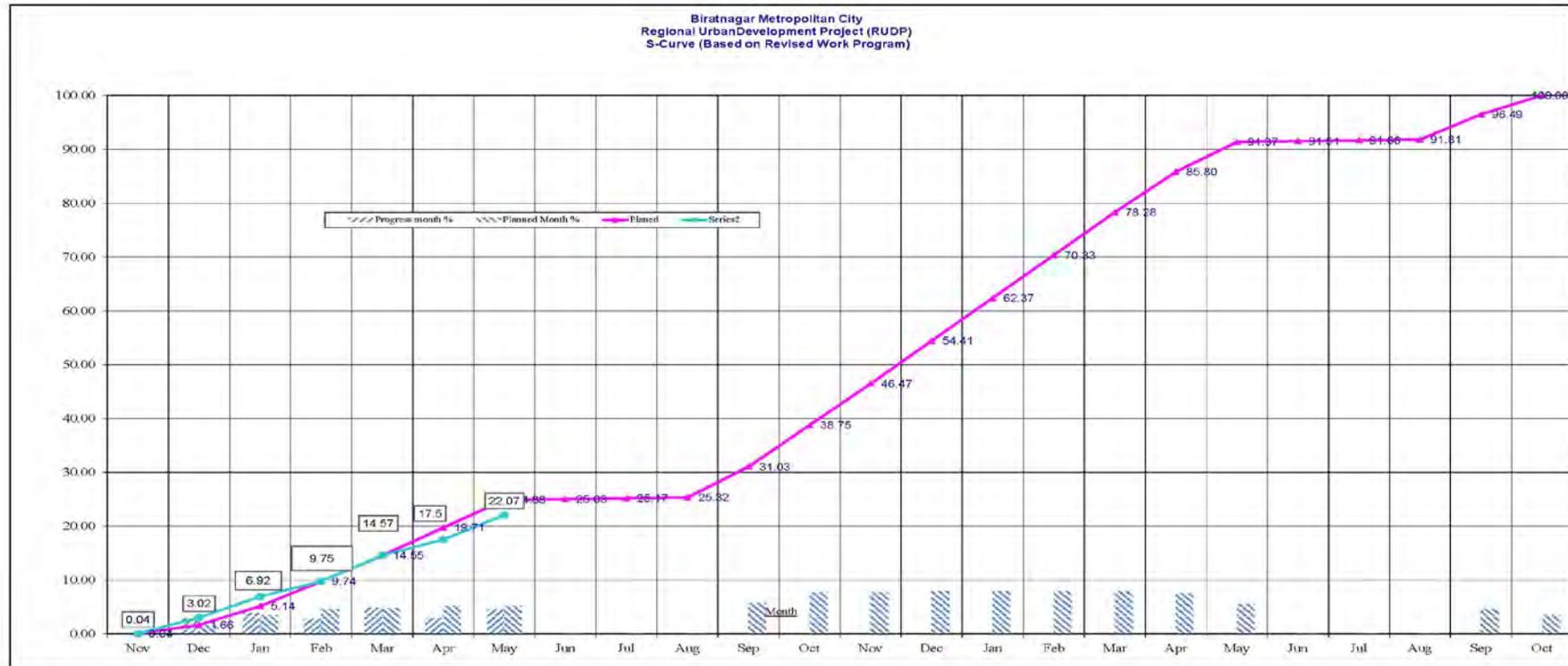
Prepared By:
Dwarika Phuyal 
Environmental Safeguard Expert/DSC
01-06-2018

Checked By: 
Gresh Chand
Team Leader/DSC



14 ANNEX-5: S-CURVE
Attached





Year/Month	2017					2018										2019								
	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
Planned Month %	0.04	1.63	3.48	4.60	4.80	5.17	5.17	0.15	0.15	0.15	5.71	7.72	7.72	7.95	7.96	7.96	7.96	7.51	5.57	0.15	0.15	0.15	4.69	3.51
Progress month %	0.04	2.98	3.90	2.83	4.82	2.93	4.57																	
Planned Cum %	0.04	1.66	5.14	9.74	14.55	19.71	24.88	25.03	25.17	25.32	31.03	38.75	46.47	54.41	62.37	70.33	78.28	85.80	91.37	91.51	91.66	91.81	96.49	100.00
Progress Cum%	0.04	3.02	6.92	9.75	14.57	17.50	22.07																	
planned month Amount in 100000	8.63	375.58	803.89	1063.54	1109.65	1193.63	1194.23	33.70	33.70	33.70	1320.43	1782.81	1783.51	1836.66	1838.96	1838.26	1838.32	1736.00	1286.85	34.01	34.00	34.00	1082.59	810.36
Achieved Month Amount in 100000	8.63	688.39	901.17	653.93	1113.76	677.04	1056.66																	
planned Cum Amount in 100000	8.63	384.21	1188.10	2251.64	3361.29	4554.92	5749.15	5782.85	5816.55	5850.25	7170.68	8953.49	10737.00	12573.66	14412.62	16250.88	18089.20	19825.20	21112.06	21146.06	21180.06	21214.07	22296.65	23107.01
Achieved Cum Amount in 100000	8.63	697.22	1598.39	2252.32	3356.08	4043.11	5099.78																	



15 MASTER PLAN OF RUDP PROJECT



RUDP PROJECT (Road)

